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*** It is now 5/17/09 8:09:59 AM ***

Welcome to DialogLink - Version 5

Revolutionize the Way You Work!

New on Dialog

Order Patent and Trademark File Histories Through Dialog

Thomson File Histories are now available directly through *Dialog*. Combined with the comprehensive patent and trademark information on *Dialog*, file histories give you the most complete view of a patent or trademark and its history in one place. When searching in the following patent and trademark databases, a link to an online order form is displayed in your search results, saving you time in obtaining the file histories you need.

Thomson File Histories are available from the following *Dialog* databases:

- CLAIMS/Current Patent Legal Status (File 123)
- CLAIMS/U.S. Patents (File 340)
- Chinese Patent Abstracts in English (File 344)
- Derwent Patents Citation Index (File 342)
- Derwent World Patents Index (for users in Japan) (File 352)
- Derwent World Patents Index First View (File 331)
- Derwent World Patents Index (File 351)
- Derwent World Patents Index (File 350)
- Ei EnCompassPat (File 353)
- European Patents Fulltext (File 348)
- French Patents (File 371)
- German Patents Fulltext (File 324)
- IMS Patent Focus (File 447, 947)
- INPADOC/Family and Legal Status (File 345)
- JAPIO - Patent Abstracts of Japan (File 347)
- LitAlert (File 670)
- U.S. Patents Fulltext (1971-1975) (File 652)

- U.S. Patents Fulltext (1976-present) (File 654)
- WIPO/PCT Patents Fulltext (File 349)
- TRADEMARKSCAN - U.S. Federal (File 226)

DialogLink 5 Release Notes

New features available in the latest release of DialogLink 5 (August 2006)

- Ability to resize images for easier incorporation into DialogLink Reports
- New settings allow users to be prompted to save Dialog search sessions in the format of their choice (Microsoft Word, RTF, PDF, HTML, or TEXT)
- Ability to set up Dialog Alerts by Chemical Structures and the addition of Index Chemicus as a structure searchable database
- Support for connections to STN Germany and STN Japan services

Show Preferences for details

? Help Log On Msg

*** ANNOUNCEMENTS ***

*** FREE FILE OF THE MONTH (May) ABI/INFORM(File 15)

Each month Dialog offers an opportunity to try out new or unfamiliar sources by offering \$100 of free searching (either DialUnits or connect time) in one specific file. Output and Alerts charges are not included. For more details visit:
<http://www.dialog.com/freefile/> and then take a moment to get familiar with another great Dialog resource.

*** "Thomson File Histories" are now available directly through Dialog in selected patent and trademark files. Combined with the comprehensive patent and trademark information on Dialog, file histories give you the most complete view of a patent or trademark and its history in one place. When searching in one of the patent and trademark databases, a link to an online order form is displayed

in your search results, saving you time in obtaining the file histories you need. See HELP FILEHIST for more information about how to use the link and a list of files that contain the link.

NEW FILE

***File 457, The Lancet(R)

RESUMED UPDATING

***File 523, D&B European Financial Records

RELOADS COMPLETED

***File 662, TRADEMARKSCAN(R) - Austria

***File 669, TRADEMARKSCAN(R) - Japan

***File 678, TRADEMARKSCAN(R) - Norway

FILES REMOVED

***File 301, CHEMNAME - please use File 398 ChemSearch

***File 388, PEDS: Defense Program Summaries

***File 588, DMS-FI Contract Awards

>>>For the latest news about Dialog products, services, content<<<
>>>and events, please visit What's New from Dialog at <<<
>>><http://www.dialog.com/whatsnew/>. You can find news about <<<
>>>a specific database by entering HELP NEWS <file number>. <<<

? Help Off Line

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Connecting to Rob Pond - Dialog - 264751

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24,2,476,635,570,PAPERSMJ,PAPERSEU,47

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1 of the specified files is not available

[File 610] **Business Wire** 1999-2009/May 16

(c) 2009 Business Wire. All rights reserved.

**File 610: File 610 now contains data from 3/99 forward. Archive data (1986-2/99) is available in File 810.*

[File 613] **PR Newswire** 1999-2009/May 17

(c) 2009 PR Newswire Association Inc. All rights reserved.

**File 613: File 613 now contains data from 5/99 forward. Archive data (1987-4/99) is available in File 813.*

[File 634] **San Jose Mercury** Jun 1985-2009/May 15

(c) 2009 San Jose Mercury News. All rights reserved.

[File 810] **Business Wire** 1986-1999/Feb 28

(c) 1999 Business Wire . All rights reserved.

[File 813] **PR Newswire** 1987-1999/Apr 30

(c) 1999 PR Newswire Association Inc. All rights reserved.

[File 20] **Dialog Global Reporter** 1997-2009/May 17

(c) 2009 Dialog. All rights reserved.

[File 583] **Gale Group Globalbase(TM)** 1986-2002/Dec 13

(c) 2002 Gale/Cengage. All rights reserved.

**File 583: This file is no longer updating as of 12-13-2002.*

[File 474] **New York Times Abs** 1969-2009/May 17

(c) 2009 The New York Times. All rights reserved.

[File 475] **Wall Street Journal Abs** 1973-2009/May 16

(c) 2009 The New York Times. All rights reserved.

[File 35] **Dissertation Abs Online** 1861-2009/Apr

(c) 2009 ProQuest Info&Learning. All rights reserved.

[File 65] **Inside Conferences** 1993-2009/May 15

(c) 2009 BLDSC all rts. reserv. All rights reserved.

[File 99] **Wilson Appl. Sci & Tech Abs** 1983-2009/Apr

(c) 2009 The HW Wilson Co. All rights reserved.

[File 256] **TecInfoSource** 82-2009/Mar

(c) 2009 Info.Sources Inc. All rights reserved.

[File 9] **Business & Industry(R)** Jul/1994-2009/May 16

(c) 2009 Gale/Cengage. All rights reserved.

[File 15] **ABI/Inform(R)** 1971-2009/May 16

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[File 16] **Gale Group PROMT(R)** 1990-2009/Apr 27

(c) 2009 Gale/Cengage. All rights reserved.

**File 16: UD/banner does not reflect last processed date*

[File 148] **Gale Group Trade & Industry DB** 1976-2009/May 04

(c) 2009 Gale/Cengage. All rights reserved.

**File 148: The CURRENT feature is not working in File 148. See HELP NEWS148.*

[File 160] **Gale Group PROMT(R)** 1972-1989

(c) 1999 The Gale Group. All rights reserved.

[File 275] **Gale Group Computer DB(TM)** 1983-2009/Apr 22

(c) 2009 Gale/Cengage. All rights reserved.

[File 347] **JAPIO** Dec 1976-2009/Jan(Updated 090503)

(c) 2009 JPO & JAPIO. All rights reserved.

[File 348] **EUROPEAN PATENTS** 1978-200920

(c) 2009 European Patent Office. All rights reserved.

[File 349] **PCT FULLTEXT** 1979-2009/UB=20090514|UT=20090507

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[File 621] **Gale Group New Prod.Annou.(R)** 1985-2009/Apr 13

(c) 2009 Gale/Cengage. All rights reserved.

[File 636] **Gale Group Newsletter DB(TM)** 1987-2009/Apr 27

(c) 2009 Gale/Cengage. All rights reserved.

[File 624] **McGraw-Hill Publications** 1985-2009/May 15

(c) 2009 McGraw-Hill Co. Inc. All rights reserved.

[File 2] **INSPEC** 1898-2009/May W2

(c) 2009 The IET. All rights reserved.

[File 635] **Business Dateline(R)** 1985-2009/May 16

(c) 2009 ProQuest Info&Learning. All rights reserved.

[File 570] **Gale Group MARS(R)** 1984-2009/Apr 27

(c) 2009 Gale/Cengage. All rights reserved.

[File 387] **The Denver Post** 1994-2009/May 15

(c) 2009 Denver Post. All rights reserved.

[File 471] **New York Times Fulltext** 1980-2009/May 13

(c) 2009 The New York Times. All rights reserved.

[File 492] **Arizona Repub/Phoenix Gaz** 19862002/Jan 06

(c) 2002 Phoenix Newspapers. All rights reserved.

**File 492: File 492 is closed (no longer updating). Use Newsroom, Files 989 and 990, for current records.*

[File 494] **St LouisPost-Dispatch** 1988-2009/May 13

(c) 2009 St Louis Post-Dispatch. All rights reserved.

[File 631] **Boston Globe** 1980-2009/May 17

(c) 2009 Boston Globe. All rights reserved.

[File 633] **Phil.Inquirer** 1983-2009/May 17

(c) 2009 Philadelphia Newspapers Inc. All rights reserved.

[File 638] **Newsday/New York Newsday** 1987-2009/May 17

(c) 2009 Newsday Inc. All rights reserved.

[File 640] **San Francisco Chronicle** 1988-2009/May 15

(c) 2009 Chronicle Publ. Co. All rights reserved.

[File 641] **Rocky Mountain News** Jun 1989-2009/Jan 16

(c) 2009 Scripps Howard News. All rights reserved.

**File 641: This file has ceased updating*

[File 702] **Miami Herald** 1983-2009/May 17

(c) 2009 The Miami Herald Publishing Co. All rights reserved.

[File 703] **USA Today** 1989-2009/May 15

(c) 2009 USA Today. All rights reserved.

[File 704] **(Portland)The Oregonian** 1989-2009/May 15

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[File 713] **Atlanta J/Const.** 1989-2009/Mar 08

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[File 714] **(Baltimore) The Sun** 1990-2009/May 13

(c) 2009 Baltimore Sun. All rights reserved.

[File 715] **Christian Sci.Mon.** 1989-2009/Apr 21

(c) 2009 Christian Science Monitor. All rights reserved.

[File 725] **(Cleveland)Plain Dealer** Aug 1991-2009/May 15

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[File 735] **St. Petersburg Times** 1989- 2009/May 08

(c) 2009 St. Petersburg Times. All rights reserved.

[File 477] **Irish Times** 1999-2009/May 16

(c) 2009 Irish Times. All rights reserved.

[File 710] **Times/Sun.Times(London)** Jun 1988-2009/May 16

(c) 2009 Times Newspapers. All rights reserved.

[File 711] **Independent(London)** Sep 1988-2006/Dec 12

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**File 711: This file does not update. See NewsRoom for full daily coverage from many European sources.*

[File 756] **Daily/Sunday Telegraph** 2000-2009/May 17

(c) 2009 Telegraph Group. All rights reserved.

[File 757] **Mirror Publications/Independent Newspapers** 2000-2009/May 17

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[File 47] **Gale Group Magazine DB(TM)** 1959-2009/May 07

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14095014	PERIOD
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2188909	LIMITS
1340456	LIMITING
12344968	LIMITED
1390511	LIMITATION
1171117	LIMITATIONS
3398364	EXTEND
1745232	EXTENDS
2700026	EXTENSION
584647	EXTENSIONS
2012485	EXTENDING
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6854491	ADD
3882334	ADDS
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17289252	ADDITION
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Text:

...largest and best-known auction site, but it isn't the only one.
Competitors include:

Bidz, based in Culver City, CA, buys closeout lots and offers them in noreserve auctions

On sellers, companies with eBay stores can list their merchandise in "Store Inventory," an **additional** format providing longer **durations** (30, 60, 90, and 120 days, and "Good 'Til Cancelled," ending whenever the store chooses...

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126611001 S1
285839 EBAY
285839 EBAY
36728247 COM
19862 EBAY(W)COM
13549429 CLOSE
6795176 CLOSED
4297711 CLOSING
869116 CLOSES
587479 EXPIRE
446924 EXPIRES
118468 EXPIRING
822207 EXPIRATION
28410 EXPIRATIONS
431759 TERMINATE
160024 TERMINATES
222302 TERMINATING
778518 TERMINATION
6825930 STOP
1045633 STOPS
2758834 STOPPED
900079 STOPPING
947545 HALT
77476 HALTS
446081 HALTED
135539 HALTING
29061840 END
3108310 ENDS
9021457 ENDED
2890025 ENDING
852341 INTERVAL
693274 INTERVALS

973061 DURATION

4617456 MINUTE

7367250 MINUTES

6189541 HOUR

9003581 HOURS

26070675 DAY

15293860 DAYS

7540042 DAILY

54268963 TIME

14095014 PERIOD

2411435 PERIODS

64266 DURATIONS

3579034 SESSION

2882155 CYCLE

994553 CYCLES

1605452 SESSIONS

3398364 EXTEND

4176370 EXTENDED

1745232 EXTENDS

2700026 EXTENSION

584647 EXTENSIONS

2012485 EXTENDING

40159 EXTENDABLE

4730490 EXTRA

43510 (((((((((((((((((((((((CLOSE OR CLOSED) OR CLOSING) OR CLOSES) OR EXPIRE) OR EXPIRES) OR EXPIRING) OR EXPIRATION) OR EXPIRATIONS) OR TERMINATE) OR TERMINATES) OR TERMINATING) OR TERMINATION) OR STOP) OR STOPS) OR STOPPED) OR STOPPING) OR HALT) OR HALTS) OR HALTED) OR HALTING) OR END) OR ENDS) OR ENDED) OR ENDING)(5N)((((((((((((((((((INTERVAL OR INTERVALS) OR DURATION) OR MINUTE) OR MINUTES) OR HOUR) OR HOURS) OR DAY) OR DAYS) OR DAILY) OR TIME) OR PERIOD) OR PERIODS) OR DURATIONS) OR SESSION) OR CYCLE) OR CYCLES) OR SESSIONS)(3N)((((((((EXTEND OR EXTENDED) OR EXTENDS) OR EXTENSION) OR EXTENSIONS) OR EXTENDING) OR EXTENDABLE) OR EXTRA))

S7 53 S S1 AND (EBAY OR EBAY(W)COM) AND ((CLOSE OR CLOSED OR CLOSING OR CLOSES OR EXPIRE OR EXPIRES OR EXPIRING OR EXPIRATION OR EXPIRATIONS OR TERMINATE OR TERMINATES OR TERMINATING OR TERMINATION OR STOP OR STOPS OR STOPPED OR STOPPING OR HALT OR HALTS OR HALTED OR HALTING OR END OR ENDS OR ENDED OR ENDING)(5N)((INTERVAL OR INTERVALS OR DURATION OR MINUTE OR MINUTES OR HOUR OR HOURS OR DAY OR DAYS OR DAILY OR TIME OR PERIOD OR PERIODS OR DURATIONS OR SESSION OR CYCLE OR CYCLES OR SESSIONS)(3N)(EXTEND OR EXTENDED OR EXTENDS OR EXTENSION OR EXTENSIONS OR EXTENDING OR EXTENDABLE OR EXTRA)))

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>>>W: Duplicate detection is not supported for File 347.

Duplicate detection is not supported for File 348.

Duplicate detection is not supported for File 349.

Records from unsupported files will be retained in the RD set.

S8 30 RD (UNIQUE ITEMS)

? t s8/free/all

>>>W: "FREE" is not a valid format name in file(s): 347-349

8/8/1 (Item 1 from file: 610)

Business Wire

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00427823 20001214349B5888 (USE FORMAT 7 FOR FULLTEXT)

CDNOW.Com Named Best of Show at Cellmania mCommerce WAPPY Awards 2000; NextBus.com Takes Top Honors for Most Original Wireless Concept

Thursday , December 14, 2000 09:01 EST

Word Count: 682

Company Names: cdnow, inc.; AT AND T WIRELESS; AT AND T CORP; NAL INC; SUN MICROSYSTEMS INC

Geographic Names: CALIFORNIA; UNITED KINGDOM; USA; AMERICAS; NORTH AMERICA; EUROPEAN UNION; EUROPE; WESTERN EUROPE

Product Names: INTERNET; MANAGEMENT CHANGES; MOBILE COMMUNICATIONS; NETWORKS; RADIO COMMUNICATION; COMMUNICATIONS TECHNOLOGIES; COMPUTERS; COMPANY PROFILES; CORPORATE; TELECOMMUNICATIONS; DATA COMMUNICATIONS

Event Names: COMPANY PROFILES

8/8/2 (Item 1 from file: 613)

PR Newswire

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00405370 20000830CGSUM (USE FORMAT 7 FOR FULLTEXT)

PR Newswire Midwest Summary Wednesday, August 30 to 4 P.M. EST

Wednesday , August 30, 2000 17:05 EDT

Word Count: 3,237

Company Names: NASH FINCH CO; NASH FINCH CO INC; NATIONAL CITY CORP; NORTHWEST AIRLINES CORP; LIMITED INC; PAPER WAREHOUSE INC; CONTENT MANAGEMENT CORP LTD; TOYS INTERNATIONAL INC; UMB FINANCIAL CORP; RALCORP HOLDINGS; MILLENIUM PLC; MILLENIUM LTD; LOUISVILLE; LOUISVILLE SC LTD; CELLULAR TELECOMMUNICATIONS INDUSTRY AS; PEGASUS TECHNOLOGIES INC; AMERICAN IRON AND STEEL INSTITUTE INC; FREEDOM CENTER; STORA ENSO OYJ; EARTHGRAINS CO; GLOBAL ENTERTAINMENT; GLOBAL

ENTERTAINMENT INC; OH INC; OH CO INC; STERIS CORP; CONSOLIDATED PAPERS INC

Geographic Names: MINNESOTA; MISSOURI; NEBRASKA; NORTH AMERICA; OHIO; SOUTH DAKOTA; USA; WISCONSIN; AMERICAS

Product Names: ADVERTISING AND PROMOTION; AIRLINES; CARS; MOTOR DEALERS; PASSENGER TRANSPORT; POLITICAL AND PUBLIC AFFAIRS; MARKETING; AIR TRANSPORT; TRANSPORT; TRAVEL AND TOURISM; AUTOMOTIVE INDUSTRY; RETAILING AND DISTRIBUTION

Event Names: ADVERTISING AND PROMOTION; DISTRIBUTION CHANNELS; LABOUR RELATIONS; LEGAL; POLITICAL AND PUBLIC AFFAIRS; RESEARCH AND DEVELOPMENT; SMALL FIRMS; TECHNOLOGY DEVELOPMENT

8/8/3 (Item 2 from file: 613)

PR Newswire

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00187696 19991004DCM025 (USE FORMAT 7 FOR FULLTEXT)

InfNet's New iBidSmart Offers Unique Auction Solution for Newspapers

Monday , October 4, 1999 11:40 EDT

Word Count: 627

Company Names: InfNet; BidderEdge, Inc.; KNIGHT RIDDER INC; LANDMARK COMMUNICATIONS INC

Product Names: PUBLISHING; COMMUNICATIONS; NEW PRODUCT DEVELOPMENT; MARKETING; CORPORATE; INTERNET; NEWSPAPERS; COMPUTERS; MEDIA INDUSTRIES

Event Names: NEW PRODUCT DEVELOPMENT; PRODUCT LAUNCHES

8/8/4 (Item 3 from file: 613)

PR Newswire

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00181533 19990921LASUMM (USE FORMAT 7 FOR FULLTEXT)

PR Newswire California Summary, Tuesday, Sept. 21, 1999 up to 10:00 a.m PT

Tuesday , September 21, 1999 13:40 EDT

Word Count: 3,440

Company Names: VIDEO CLIPS; OMEDIA LTD; MANAGEMENT TEAM; HEXAWARE TECHNOLOGIES INC; CNET INC; DONNER CO; PEN INTERCONNECT INC; NORTHPOINT COMMUNICATIONS INC; PLANTRONICS INC; HIGH TECH WORLD LTD; MOUNTAIN; PRINCETON; BIOSITE DIAGNOSTICS INC; BIOSITE DIAGNOSTICS GMBH; TOP; CORUM; CORUM SPA; ALZA CORP ; ABBOTT LABORATORIES LTD; TOYOTA MOTOR CORP

Geographic Names: CALIFORNIA; USA; AMERICAS; NORTH AMERICA

Product Names: ADVERTISING AND PROMOTION; CARS; COMPUTER SOFTWARE; MERGERS AND ACQUISITIONS; MARKETING; AUTOMOTIVE INDUSTRY; COMPUTERS; CORPORATE

Event Names: ADVERTISING AND PROMOTION; JOINT VENTURES; MERGERS AND ACQUISITIONS; SERVICES; STOCKS AND SHARES; TECHNOLOGY DEVELOPMENT

8/8/5 (Item 4 from file: 613)

PR Newswire

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00180486 19990921HSNATL1 (USE FORMAT 7 FOR FULLTEXT)

PR Newswire National Summary, Tuesday, Sept. 21, 1999 To 10 A.M. ET

Tuesday , September 21, 1999 10:02 EDT

Word Count: 7,267

Company Names: FIRST DEFIANCE FINANCIAL CORP; AT AND T CORP; AMERICAN TELEPHONE AND TELEGRAPH CO; RIGHT MANAGEMENT CONSULTANTS INC; MAINSTREAM ACCESS; PRINCETON; BRISTOL MYERS SQUIBB CO; BRISTOL MYERS SQUIBB CO INC; GLOBAL AGENCY LTD; VIDEO CLIPS; OMEDIA LTD; IMMUNOGEN INC; SOVRAN SELF STORAGE INC ; SPORTSLINE USA INC; MANAGEMENT TEAM; US HOME AND GARDEN INC; NET HOLDING; LOTUS; HURWITZ GROUP INC; IDS CORP

Geographic Names: CALIFORNIA; FLORIDA; INDIANA; MICHIGAN; UNITED KINGDOM; USA; AMERICAS; NORTH AMERICA; EUROPEAN UNION; EUROPE; WESTERN EUROPE

Product Names: ADVERTISING AND PROMOTION; BIOTECHNOLOGY; CANCER; COMPUTER SOFTWARE; HEALTH CARE SERVICES; LICENSING; MANAGEMENT CHANGES; MERGERS AND ACQUISITIONS; NETWORKS; NEW PRODUCT DEVELOPMENT; STOCKS AND SHARES; MARKETING; MEDICAL AND HEALTH; COMPUTERS; COMPANY PROFILES; CORPORATE; COMMUNICATIONS TECHNOLOGIES; DATA COMMUNICATIONS; FINANCIAL SERVICES; INVESTMENT

Event Names: ADVERTISING AND PROMOTION; COMPANY PROFILES; CONTRACTS AND ORDERS; CORPORATE FINANCIAL DATA; ENVIRONMENT; INVESTMENT; MERGERS AND ACQUISITIONS ; NEW PRODUCT DEVELOPMENT; PERSONNEL MANAGEMENT; STOCKS AND SHARES; TECHNOLOGY DEVELOPMENT

8/8/6 (Item 5 from file: 613)

PR Newswire

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00124258 19990611SFF038 (USE FORMAT 7 FOR FULLTEXT)

eBay Responds to Site Outage

Friday , June 11, 1999 22:14 EDT

Word Count: 547

Company Names: eBay, Inc.; SUN MICROSYSTEMS INC; MANNING

8/8/7 (Item 1 from file: 813)

PR Newswire

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1446152 HSENET

PR Newswire Summary of EntertaiNet Copy Moved Monday, March 29, 1999

Date: March 29, 1999

Word Count: 1,245

Section Heading: ENTERTAINMENT

8/8/8 (Item 1 from file: 20)

Dialog Global Reporter

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24203129 (USE FORMAT 7 OR 9 FOR FULLTEXT)

RPT Wall Street - Technology shares close near intraday lows on weak US data

August 01, 2002

Word Count: 508

Descriptors: Equities; Markets; Market News

Country Names/Codes: United States of America (US)

Regions: Americas; North America; Pacific Rim

Province/State: California

SIC Codes/Descriptions: 6231 (Security & Commodity Exchanges)

Naics Codes/Descriptions: 52321 (Securities & Commodity Exchanges)

8/8/9 (Item 2 from file: 20)

Dialog Global Reporter

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24203122 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Wall Street - Technology shares close near intraday lows on weak US data

August 01, 2002

Word Count: 499

Descriptors: Economic Indicators; Economic News; Market Reports; Market News; Equities; Markets

Country Names/Codes: United States of America (US)

Regions: Americas; North America; Pacific Rim

Province/State: California

SIC Codes/Descriptions: 6231 (Security & Commodity Exchanges)

Naics Codes/Descriptions: 52321 (Securities & Commodity Exchanges)

8/8/10 (Item 3 from file: 20)

Dialog Global Reporter

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14507546 (USE FORMAT 7 OR 9 FOR FULLTEXT)

EBay Still Out Of Service

January 03, 2001

Word Count: 238

Company Names: eBay Inc

Descriptors: Company News

Country Names/Codes: United States of America (US)

Regions: Americas; North America; Pacific Rim

Province/State: California

SIC Codes/Descriptions: 5999 (Miscellaneous Retail Stores NEC); 5961 (Catalog & Mail Order Houses)

Naics Codes/Descriptions: 453998 (All Other Misc Store Retailers exc Tobacco); 45411 (Electronic Shopping & Mail-Order Houses)

8/8/11 (Item 4 from file: 20)

Dialog Global Reporter

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14507541 (USE FORMAT 7 OR 9 FOR FULLTEXT)

EBay Site Goes Down For Hours

January 03, 2001

Word Count: 170

Company Names: eBay Inc

Descriptors: Facilities & Equipment; Company News

Country Names/Codes: United States of America (US)

Regions: Americas; North America; Pacific Rim

Province/State: California

SIC Codes/Descriptions: 5999 (Miscellaneous Retail Stores NEC); 5961 (Catalog & Mail Order Houses)

Naics Codes/Descriptions: 453998 (All Other Misc Store Retailers exc Tobacco); 45411 (Electronic Shopping & Mail-Order Houses)

8/8/12 (Item 5 from file: 20)

Dialog Global Reporter

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13869487 (USE FORMAT 7 OR 9 FOR FULLTEXT)

RPT Wall Street AFX shares at a glance

November 20, 2000

Word Count: 558

Descriptors: Political Parties; Politics; Government News; Elections; Market Reports ; Market News; Forecasts & Predictions; General News; Equities; Markets

SIC Codes/Descriptions: 9111 (Executive Offices)

Naics Codes/Descriptions: 92111 (Executive Offices)

8/8/13 (Item 6 from file: 20)

Dialog Global Reporter

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08348551 (USE FORMAT 7 OR 9 FOR FULLTEXT)

***AAP MARKETS REPORT: Tuesday, November 23, 1999**

November 22, 1999

Word Count: 1271

Company Names: London Metal Exchange
Country Names/Codes: United Kingdom (GB) ; United States of America (US)
Regions: Europe; European Union; Western Europe; Americas; North America; Pacific Rim
SIC Codes/Descriptions: 6231 (Security & Commodity Exchanges)
Naics Codes/Descriptions: 52321 (Securities & Commodity Exchanges)

8/8/14 (Item 1 from file: 15)
ABI/Inform(R)
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02676674 444059731

****USE FORMAT 7 OR 9 FOR FULL TEXT****

Public independent fact-finding: A trust-generating institution for an age of corporate illegitimacy and public mistrust

Word Count: 15708
May 2003
Geographic Names: United States; US

Descriptors: Corporate responsibility; Business ethics; Public opinion
Classification Codes: 9190 (CN=United States); 2410 (CN=Social responsibilities)
Print Media ID: 23445

8/8/15 (Item 2 from file: 15)
ABI/Inform(R)
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02025229 53979671

****USE FORMAT 7 OR 9 FOR FULL TEXT****

Why you need an Internet strategy
Word Count: 614 **Length:** 1 Pages
May 2000
Geographic Names: New Zealand

Descriptors: Internet; Strategic management; Advantages
Classification Codes: 9179 (CN=Asia & the Pacific); 2310 (CN=Planning)
Print Media ID: 24529

8/8/16 (Item 1 from file: 16)
Gale Group PROMT(R)
(c) 2009 Gale/Cengage. All rights reserved.
08313568 **Supplier Number:** 68738737 (USE FORMAT 7 FOR FULLTEXT)

EBay Still Out Of Service.(Company Business and Marketing)
Jan 3 , 2001
Word Count: 244
Publisher Name: Newsbytes News Network

Company Names: *eBay Inc.

Event Names: *360 (Services information)

Geographic Names: *1USA (United States)

Product Names: *4811520 (Online Services)

Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation); TELC (Telecommunications)

SIC Codes: 4822 (Telegraph & other communications)

NAICS Codes: 514191 (On-Line Information Services)

Special Features: COMPANY

8/8/17 (Item 2 from file: 16)

Gale Group PROMT(R)

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08313563 **Supplier Number:** 68738732 (USE FORMAT 7 FOR FULLTEXT)

EBay Site Goes Down For Hours.(Company Business and Marketing)(Brief Article)

Jan 3 , 2001

Word Count: 169

Publisher Name: Newsbytes News Network

Company Names: *eBay Inc.

Event Names: *360 (Services information)

Geographic Names: *1USA (United States)

Product Names: *4811520 (Online Services)

Industry Names: BUSN (Any type of business); CMPT (Computers and Office Automation); TELC (Telecommunications)

SIC Codes: 4822 (Telegraph & other communications)

NAICS Codes: 514191 (On-Line Information Services)

Special Features: COMPANY

8/8/18 (Item 1 from file: 148)

Gale Group Trade & Industry DB

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11138587 **Supplier Number:** 54962423

Nearly daylong outage plagues online auction house EBay; glitch is the latest in a month for the firm, as it and the e-commerce industry struggle to meet demand.(Company Business and Marketing)

June 12 , 1999

Company Names: eBay Inc.--Services

Industry Codes/Names: BUSN Any type of business; REG Business, Regional

Descriptors: Online services--Services

Geographic Codes: 1USA United States

Product/Industry Names: 4811520 (Online Services)

NAICS Codes: 514191 On-Line Information Services

File Segment: NNI File 111

8/8/25 (Item 1 from file: 492)
Arizona Repub/Phoenix Gaz
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11041160

BIG FUN DINOSAURS INVADE SCIENCE CENTER

Saturday, February 10, 2001
Word Count: 1,063

8/8/26 (Item 1 from file: 631)
Boston Globe
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10001043

INS & OUTS 1998 OUR ANNUAL GUIDE TO WHAT'S GONE, WHAT LIVES ON

FRIDAY, January 1, 1999
Word Count: 1,427

Descriptors: YEAR

8/8/27 (Item 1 from file: 638)
Newsday/New York Newsday
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11302146

SHORT CUTS / U.S. Budget Surplus Shrinks To \$127 Billion

Monday October 29, 2001
Word Count: 724

Descriptors: BUDGET BUSINESS INTERNET

8/8/28 (Item 1 from file: 640)
San Francisco Chronicle
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10163028

OUTAGE ZAPS EBAY ONLINE AUCTION WEB SITE APPARENTLY LOST MILLIONS IN TRANSACTIONS DURING DAYLONG BLACKOUT

SATURDAY, June 12, 1999

Word Count: 899

Descriptors: ONLINE SERVICES; COMPUTER FAILURES; BUSINESS; AUCTIONS; **EBAY**; INTERNET

8/8/29 (Item 1 from file: 702)

Miami Herald

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11229079

ONLY TIME WILL TELL ABOUT 'HANNIBAL'

Friday, August 17, 2001

Word Count: 613

Descriptors: ;

8/8/30 (Item 1 from file: 713)

Atlanta J/Const.

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10365111

DAILY SUMMARY: A QUICK LOOK AT TODAY'S BUSINESS NEWS.

Friday, December 31, 1999

Word Count: 332

>>>W: "FREE" is not a valid format name in file(s): 347-349

8/8/25 (Item 1 from file: 492)

Arizona Repub/Phoenix Gaz

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11041160

BIG FUN DINOSAURS INVADE SCIENCE CENTER

Saturday, February 10, 2001

Word Count: 1,063

8/8/26 (Item 1 from file: 631)

Boston Globe
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10001043

INS & OUTS 1998 OUR ANNUAL GUIDE TO WHAT'S GONE, WHAT LIVES ON

FRIDAY, January 1, 1999
Word Count: 1,427

Descriptors: YEAR

8/8/27 (Item 1 from file: 638)
Newsday/New York Newsday
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11302146

SHORT CUTS / U.S. Budget Surplus Shrinks To \$127 Billion

Monday October 29, 2001
Word Count: 724

Descriptors: BUDGET BUSINESS INTERNET

8/8/28 (Item 1 from file: 640)
San Francisco Chronicle
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10163028

OUTAGE ZAPS EBAY ONLINE AUCTION WEB SITE APPARENTLY LOST MILLIONS IN TRANSACTIONS DURING DAYLONG BLACKOUT

SATURDAY, June 12, 1999
Word Count: 899

Descriptors: ONLINE SERVICES; COMPUTER FAILURES; BUSINESS; AUCTIONS; **EBAY**; INTERNET

8/8/29 (Item 1 from file: 702)
Miami Herald
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11229079

ONLY TIME WILL TELL ABOUT 'HANNIBAL'

Friday, August 17, 2001

Word Count: 613

Descriptors: ;

8/8/30 (Item 1 from file: 713)

Atlanta J/Const.

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10365111

DAILY SUMMARY: A QUICK LOOK AT TODAY'S BUSINESS NEWS.

Friday, December 31, 1999

Word Count: 332

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S1	126611001	S PD<20040401
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S2	79	S S1 AND (BIDZ OR BIDZ(W)COM) AND (INTERVAL OR INTERVALS OR INCREMENT OR INCREMENTS OR INCREMENTING OR INCREMENTAL OR INCREMENTALLY OR DURATION OR MINUTE OR MINUTES OR HOUR OR HOURS OR DAY OR DAYS OR DAILY OR TIME OR PERIOD OR PERIODS OR DURATIONS OR SESSION OR SESSIONS OR MULTIPLE OR CYCLE OR CYCLES)
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S3	1	S S1 AND (BIDZ OR BIDZ(W)COM) AND ((INTERVAL OR INTERVALS OR INCREMENT OR INCREMENTS OR INCREMENTING OR INCREMENTAL OR INCREMENTALLY OR DURATION OR MINUTE OR MINUTES OR HOUR OR HOURS OR DAY OR DAYS OR DAILY OR TIME OR PERIOD OR PERIODS OR DURATIONS) (3N) (LIMIT OR LIMITS OR LIMITING OR LIMITED OR LIMITATION OR LIMITATIONS OR EXTEND OR EXTENDS OR EXTENSION OR EXTENSIONS OR EXTENDING OR EXTENDABLE OR ADD OR ADDS OR ADDED OR ADDING OR ADDITION OR ADDITIONS OR ADDITIONAL OR EXTRA OR INCREASE OR INCREASES OR INCREASED OR INCREASING))
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S4	6231	S S1 AND (EBAY OR EBAY(W)COM) AND ((INTERVAL OR INTERVALS OR INCREMENT OR INCREMENTS OR INCREMENTING OR INCREMENTAL OR INCREMENTALLY OR DURATION OR MINUTE OR MINUTES OR HOUR OR HOURS OR DAY OR DAYS OR DAILY OR TIME OR PERIOD OR PERIODS OR DURATIONS OR SESSION OR CYCLE OR CYCLES OR SESSIONS) (3N) (LIMIT OR LIMITS OR LIMITING OR LIMITED OR LIMITATION OR LIMITATIONS OR EXTEND OR EXTENDED OR EXTENDS OR EXTENSION OR EXTENSIONS OR EXTENDING OR EXTENDABLE OR ADD OR ADDS OR ADDED OR ADDING OR ADDITION OR ADDITIONS OR ADDITIONAL OR EXTRA OR INCREASE OR INCREASES OR INCREASED OR INCREASING))
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S5	5266	S S1 AND (EBAY OR EBAY(W)COM) AND ((INTERVAL OR INTERVALS OR DURATION OR MINUTE OR MINUTES OR HOUR OR HOURS OR DAY OR DAYS OR DAILY OR TIME OR PERIOD OR PERIODS OR DURATIONS OR SESSION OR CYCLE OR CYCLES OR SESSIONS) (3N) (EXTEND OR EXTENDED OR EXTENDS OR EXTENSION OR EXTENSIONS OR EXTENDING OR EXTENDABLE OR ADD OR ADDS OR ADDED OR ADDING OR ADDITION OR ADDITIONS OR ADDITIONAL OR EXTRA OR INCREASE OR INCREASES OR INCREASED OR INCREASING OR INCREMENT OR INCREMENTS OR INCREMENTING OR INCREMENTAL OR INCREMENTALLY))
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S8 30 RD (unique items)

? S S1 AND (auction or auctions or auctioning or bidding) AND ((CLOSE OR CLOSED OR CLOSING OR CLOSES OR EXPIRE OR EXPIRES OR EXPIRING OR EXPIRATION OR EXPIRATIONS OR TERMINATE OR TERMINATES OR TERMINATING OR TERMINATION OR STOP OR STOPS OR STOPPED OR STOPPING OR HALT OR HALTS OR HALTED OR HALTING OR END OR ENDS OR ENDED OR ENDING) (5N) ((automatic or automatically or dynamic or dynamically or INTERVAL OR INTERVALS OR DURATION OR MINUTE OR MINUTES OR HOUR OR HOURS OR DAY OR DAYS OR DAILY OR TIME OR PERIOD OR PERIODS OR DURATIONS OR SESSION OR CYCLE OR CYCLES OR SESSIONS) (3N) (EXTEND OR EXTENDED OR EXTENDS OR EXTENSION OR EXTENSIONS OR EXTENDING OR EXTENDABLE OR EXTRA)))

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126611001 S1

1271099 AUCTION

401392 AUCTIONS

52015 AUCTIONING

920518 BIDDING

13549429 CLOSE

6795176 CLOSED

4297711 CLOSING

869116 CLOSES

587479 EXPIRE

446924 EXPIRES

118468 EXPIRING

822207 EXPIRATION

28410 EXPIRATIONS

431759 TERMINATE

160024 TERMINATES

222302 TERMINATING

778518 TERMINATION

6825930 STOP

1045633 STOPS

2758834 STOPPED

900079 STOPPING

947545 HALT

77476 HALTS

446081 HALTED

135539	HALTING
29061840	END
3108310	ENDS
9021457	ENDED
2890025	ENDING
2535892	AUTOMATIC
2557478	AUTOMATICALLY
2800349	DYNAMIC
364300	DYNAMICALLY
852341	INTERVAL
693274	INTERVALS
973061	DURATION
4617456	MINUTE
7367250	MINUTES
6189541	HOURL
9003581	HOURS
26070675	DAY
15293860	DAYS
7540042	DAILY
54268963	TIME
14095014	PERIOD
2411435	PERIODS
64266	DURATIONS
3579034	SESSION
2882155	CYCLE
994553	CYCLES
1605452	SESSIONS
3398364	EXTEND
4176370	EXTENDED
1745232	EXTENDS
2700026	EXTENSION
584647	EXTENSIONS
2012485	EXTENDING
40159	EXTENDABLE

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Processing

489	S10
1426939	QUANTITY
1049503	QUANTITIES
1028566	THRESHOLD
172854	THRESHOLDS
27887883	NUMBER
6977984	VOLUME
16934471	LEVEL
8799357	LEVELS
8208584	ACTIVITY
4464716	BID
1075505	BIDS
14615704	OFFER
11600104	OFFERS
7517505	RESPONSE
1301630	RESPONSES

982672 (((((((QUANTITY OR QUANTITIES) OR THRESHOLD) OR THRESHOLDS) OR NUMBER) OR VOLUME) OR LEVEL) OR LEVELS) (3N) (((((ACTIVITY OR BID) OR BIDS) OR OFFER) OR OFFERS) OR RESPONSE) OR RESPONSES)

S11 56 S S10 AND ((QUANTITY OR QUANTITIES OR THRESHOLD OR THRESHOLDS OR NUMBER OR VOLUME OR LEVEL OR LEVELS) (3N) (ACTIVITY OR BID OR BIDS OR OFFER OR OFFERS OR RESPONSE OR RESPONSES))

? t s11/free/all

>>>W: "FREE" is not a valid format name in file(s): 347-349

11/8/1 (Item 1 from file: 610)

Business Wire

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00499977 20010416106B9697 (USE FORMAT 7 FOR FULLTEXT)

FairMarket Introduces Innovative Tools to Maximize Yield; Enhanced Functionality Enriches Shopping Experience

Monday , April 16, 2001 17:42 EDT

Word Count: 796

Company Names: fairmarket inc.; DELL COMPUTER CORP; FAIM; Dell Computer Corporation; CompUSA; Securities and Exchange Commission; Sterling Hager Inc; News On The Net; MASSACHUSETTS INDUSTRY
KEYWORD

Product Names: ADVERTISING AND PROMOTION; COMMUNICATIONS TECHNOLOGIES; COMPUTERS; DATA COMMUNICATIONS; ELECTRONIC COMMERCE; INSTITUTIONS; MARKETING; NETWORKS; REGULATION; RETAILERS; RETAILING AND DISTRIBUTION

Event Names: ADVERTISING AND PROMOTION; DISTRIBUTION CHANNELS; REGULATION; RETAILING; TECHNOLOGY DEVELOPMENT

11/8/2 (Item 2 from file: 610)

Business Wire

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00098697 19990901244B1404 (USE FORMAT 7 FOR FULLTEXT)

Post Close Quantity Match Extended To CalPX Day-Ahead Market

Wednesday , September 1, 1999 14:35 EDT

Word Count: 308

Geographic Names: CALIFORNIA; AMERICAS; NORTH AMERICA; USA

Product Names: ELECTRIC POWER; FUEL AND POWER

11/8/3 (Item 1 from file: 813)

PR Newswire

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0120775 NY096

RJR HOLDINGS AGREES TO BIDDING PROCEDURES; EXTENDS RJR NABISCO TENDER OFFER

Date: November 11, 1988

Word Count: 299

Ticker Symbol: RJR (NYS)

Section Heading: BUSINESS

11/8/4 (Item 1 from file: 20)

Dialog Global Reporter

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13280058 (USE FORMAT 7 OR 9 FOR FULLTEXT)

California Home Builder Holds Internet Auction for Vacant Houses

October 12, 2000

Word Count: 1264

Descriptors: Property & Real Estate; General News

Country Names/Codes: United States of America (US)

Regions: Americas; North America; Pacific Rim

Province/State: California

SIC Codes/Descriptions: 6552 (Subdividers & Developers Ex Cemeteries); 6500 (Real Estate); 5999 (Miscellaneous Retail Stores NEC); 7375 (Information Retrieval Services); 1521 (Single-Family Housing Construction)

Naics Codes/Descriptions: 23311 (Land Subdivision & Land Development); 531 (Real Estate); 453998 (All Other Misc Store Retailers exc Tobacco); 514191 (On-Line Information Services); 23321 (Single-Family Housing Construction)

11/8/5 (Item 1 from file: 15)

ABI/Inform(R)

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02642860 413172421

****USE FORMAT 7 OR 9 FOR FULL TEXT****

Poison pills: the next round

Word Count: 2189

Spring 1999

Geographic Names: United States; US; Canada

Descriptors: Shareholders rights; Tender offers; Shareholders wealth; Management controls; Commercial law

Classification Codes: 2330 (CN=Acquisitions & mergers); 3400 (CN=Investment analysis & personal finance); 9172 (CN=Canada); 4300 (CN=Law); 9190 (CN=United States)

Print Media ID: 53244

11/8/6 (Item 2 from file: 15)

ABI/Inform(R)

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02557945 233218191

****USE FORMAT 7 OR 9 FOR FULL TEXT****

Self-development: The nine basic skills for business success

Word Count: 64604 **Length:** 150 Pages

1997

Descriptors: Guidelines; Strategic management; Marketing; Profits; Leadership; Time management; Objectives

Classification Codes: 9150 (CN=Guidelines); 2310 (CN=Planning); 7000 (CN=Marketing); 2200 (CN=Managerial skills)

Print Media ID: 14846

11/8/7 (Item 3 from file: 15)

ABI/Inform(R)

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02323695 86923291

****USE FORMAT 7 OR 9 FOR FULL TEXT****

Business-to-business online auctions: key issues for purchasing process improvement

Word Count: 6151

2000

Descriptors: Auctions; Business to business commerce; Electronic commerce; Supply chains

Classification Codes: 5250 (CN=Telecommunications systems & Internet communications); 5330 (CN=Inventory management)

Print Media ID: 46145

11/8/8 (Item 4 from file: 15)

ABI/Inform(R)

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01593497 02-44486

****USE FORMAT 7 OR 9 FOR FULL TEXT****

A mixed bag: Assessment of market performance and firm trading behavior in the NOx RECLAIM programme

Word Count: 10715 **Length:** 24 Pages

Nov 1997

Geographic Names: US; California

Descriptors: Environmental policy; Performance evaluation; Business cycles; Statistical analysis; Studies

Classification Codes: 9190 (CN=United States); 1540 (CN=Pollution control); 9130

(CN=Experimental/Theoretical)

11/8/9 (Item 5 from file: 15)

ABI/Inform(R)

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01440785 00-91772

****USE FORMAT 7 OR 9 FOR FULL TEXT****

State labor legislation enacted in 1996

Word Count: 14880 **Length:** 13 Pages

Jan 1997

Geographic Names: US

Descriptors: Labor law; State laws; Jurisdiction; Minimum wage; Employment discrimination

Classification Codes: 6100 (CN=Human resource planning); 4320 (CN=Legislation); 9190 (CN=United States)

11/8/10 (Item 6 from file: 15)

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00951643 96-01036

****USE FORMAT 7 OR 9 FOR FULL TEXT****

The role of medium of exchange in merger offers: Examination of terminated merger proposals

Word Count: 6487 **Length:** 12 Pages

Autumn 1994

Geographic Names: US

Descriptors: Studies; Acquisitions & mergers; Terminations; Effects; Stock; Regression analysis; Valuation
Classification Codes: 9190 (CN=United States); 9130 (CN=Experimental/Theoretical); 2330 (CN=Acquisitions & mergers); 3400 (CN=Investment analysis)

11/8/11 (Item 7 from file: 15)

ABI/Inform(R)

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00925201 95-74593

****USE FORMAT 7 OR 9 FOR FULL TEXT****

United Kingdom

Word Count: 9578 **Length:** 13 Pages

Jul 1994

Geographic Names: UK

Descriptors: Stockholders; Acquisitions & mergers; Regulation; Restrictions; Tender offers; Due diligence; Procedures

Classification Codes: 9175 (CN=Western Europe); 2330 (CN=Acquisitions & mergers); 4310 (CN=Regulation); 3400 (CN=Investment analysis)

11/8/12 (Item 1 from file: 16)

Gale Group PROMT(R)

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02217068 **Supplier Number:** 42889913 (USE FORMAT 7 FOR FULLTEXT)

Prol unveils bid plan details

April 3 , 1992

Word Count: 540

Publisher Name: Financial Times Group

Event Names: *160 (Asset sales & divestitures)

Geographic Names: *3ARGE (Argentina)

Product Names: *1310000 (Crude Petroleum & Natural Gas)

Industry Names: BUSN (Any type of business); INTL (Business, International); OIL (Petroleum, Energy Resources and Mining)

NAICS Codes: 211111 (Crude Petroleum and Natural Gas Extraction)

Special Features: INDUSTRY

11/8/13 (Item 1 from file: 148)

Gale Group Trade & Industry DB

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13699696 **Supplier Number:** 75916268 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Army Reverse Auctions: An E-Commerce Acquisition Tool.(electronic commerce)

Spring , 2001

Word Count: 3049 **Line Count:** 00240

Industry Codes/Names: GOVT Government and Law
Descriptors: United States. Army--Services; Electronic commerce--Usage; **Auctions** --Services
Geographic Codes: 1USA United States
Product/Industry Names: 4811520 (Online Services)
Product/Industry Names: 4822 Telegraph & other communications
NAICS Codes: 514191 On-Line Information Services
File Segment: TI File 148

11/8/14 (Item 2 from file: 148)
Gale Group Trade & Industry DB
(c) 2009 Gale/Cengage. All rights reserved.
11789772 **Supplier Number:** 58576972 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Minutes of the Meeting of the Federal Open Market Committee Held on August 24, 1999.

Dec , 1999
Word Count: 6599 **Line Count:** 00558
Industry Codes/Names: BANK Banking, Finance and Accounting; BUSN Any type of business; GOVT Government and Law
File Segment: TI File 148

11/8/15 (Item 3 from file: 148)
Gale Group Trade & Industry DB
(c) 2009 Gale/Cengage. All rights reserved.
09648328 **Supplier Number:** 18475923 (USE FORMAT 7 OR 9 FOR FULL TEXT)
1996 IEEE MTT-S technical program. (Institute of Electrical and Electronics Engineers Microwave Theory and Techniques Society)

May , 1996
Word Count: 19516 **Line Count:** 01637
Industry Codes/Names: BUSN Any type of business; ELEC Electronics; ENG Engineering and Manufacturing; TELC Telecommunications

Descriptors: Institute of Electrical and Electronics Engineers Microwave Theory and Techniques Society--Conferences, meetings, seminars, etc.; Conferences and conventions--Calendars, schedules, etc.; Microwaves--Conferences, meetings, seminars, etc.
File Segment: TI File 148

11/8/16 (Item 4 from file: 148)
Gale Group Trade & Industry DB
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07608248 **Supplier Number:** 16531924 (USE FORMAT 7 OR 9 FOR FULL TEXT)
The role of medium of exchange in merger offers: examination of terminated merger proposals. (Venture

Capital Special Issue)

Autumn , 1994

Word Count: 6967 **Line Count:** 00608

Special Features: illustration; table

Industry Codes/Names: BANK Banking, Finance and Accounting

Descriptors: Consolidation and merger of corporations--Finance; Tender offers (Securities)--Finance

File Segment: MC File 75

11/8/17 (Item 5 from file: 148)

Gale Group Trade & Industry DB

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06219802 **Supplier Number:** 13277492 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Drawing a regulatory road map from the Hanson-Beazer merger. (Hanson PLC; Beazer PLC)(includes related articles)

July-August , 1992

Word Count: 3311 **Line Count:** 00267

Company Names: Hanson PLC--Acquisitions, mergers, divestments; Beazer PLC--Acquisitions, mergers, divestments

Industry Codes/Names: BUS Business, General

Descriptors: Consolidation and merger of corporations--International aspects; Corporations, British--Acquisitions, mergers, divestments; Corporations, American--Acquisitions, mergers, divestments

File Segment: TI File 148

11/8/18 (Item 6 from file: 148)

Gale Group Trade & Industry DB

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03693290 **Supplier Number:** 07114071 (USE FORMAT 7 OR 9 FOR FULL TEXT)

RJR Holdings agrees to bidding procedures; extends RJR Nabisco tender offer. (Kohlberg Kravis Roberts and Co.'s RJR Holdings Corp.)

Nov 11 , 1988

Word Count: 338 **Line Count:** 00026

Company Names: RJR Holdings Corp.--Management; RJR Nabisco Inc.--Acquisitions, mergers, divestments; RJR Acquisition Corp.--Acquisitions, mergers, divestments

Industry Codes/Names: BUS Business, General

Descriptors: Food industry--Acquisitions, mergers, divestments; Tobacco industry-- Acquisitions, mergers, divestments

Product/Industry Names: 2000 FOOD AND KINDRED PRODUCTS; 2100 TOBACCO PRODUCTS

Ticker Symbols: RJR

File Segment: NW File 649

11/8/53 (Item 1 from file: 635)

Business Dateline(R)

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2110603 62466746

Homes to be auctioned online

Oct 12, 2000

Word Count: 1,285

Dateline: Riverside California

Company Names: Kaufman & Broad Inc, DUNS:00-690-2142, NAICS:233220

Classification Codes: 8360 (Real estate)

Descriptors: Real estate sales; **Auctions;** Electronic commerce; Houses

Print Media ID: 133

11/8/54 (Item 1 from file: 471)

02232162 455636910521

LATE STOCK TRADES APPROVED BY S.E.C.

Tuesday May 21 1991

Word Count: 850

11/8/55 (Item 1 from file: 638)

Newsday/New York Newsday

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09635031

COVER STORY / Buyers Beware: Now Sellers Hold The Top Cards In Home Market

Friday May 15, 1998

Word Count: 1,866

Descriptors: COVER; HOUSING; SALE; STRATEGY; INFORMATION; ADVICE

11/8/56 (Item 1 from file: 47)

Gale Group Magazine DB(TM)

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06744335 **Supplier Number:** 111015093 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Guide to records.

Nov-Dec , 2003

Word Count: 122043 **Line Count:** 09395

File Segment: MI File 47

>>>W: "FREE" is not a valid format name in file(s): 347-349

11/8/53 (Item 1 from file: 635)

Business Dateline(R)

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Nov-Dec , 2003
Word Count: 122043 **Line Count:** 09395
File Segment: MI File 47

? t s11/k/all

11/K/1 (Item 1 from file: 610)
Business Wire
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Text:

...release include: seller ability to automatically move items from fixed price to falling price to **auction** as needed; seller ability to represent items of many colors or sizes in a single **auction** listing; and buyer ability to set a limit order on a falling price item. Additionally, sellers can now automatically extend an **auction's** duration to maximize excitement and **bidding**.

...clearance can specify pre-determined business rules to automatically move items between fixed, falling and **auction** pricing formats. For example, when a fixed price item is not meeting sales goals it can automatically be moved to falling price and then to **auction** formats.

Additionally, FairMarket has enhanced its **auction** solution by offering automatic time extensions or "popcorn" **bidding**. This functionality enables **auction end-times** to be **automatically extended** based on the **level** of recent **bidding activity** on an item, providing the opportunity for the highest possible bid price from available bidders...

...retail customers. Multi-item SKU allows a seller to represent several similar items within one **auction** listing.

Limit order functionality provides customers with the power to dictate the specific price they...

...of various important factors including but not limited to market acceptance of FairMarket's online **auction** and other e-commerce services; growth of the market for dynamic e-commerce services; the...

11/K/2 (Item 2 from file: 610)

Business Wire

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Post Close Quantity Match Extended To CalPX Day-Ahead Market

Text:

...Post Close Quantity Match (PCQM) to the Day-Ahead Market, permitting additional trading immediately after **auction**-hour prices are calculated.

"The extension of the PCQM service to this major energy market...

...periods, bids can equal to up to 15 percent of the amount bid in each **auction**, while bid amounts are limited to up to 10 percent during off-peak hours.

Since PCQM began in CalPX's Day-Of Market, the additional **quantity bid** into the market has averaged about 10 percent and CalPX's early expectations for the...

11/K/3 (Item 1 from file: 813)

PR Newswire

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RJR HOLDINGS AGREES TO BIDDING PROCEDURES; EXTENDS RJR NABISCO TENDER OFFER

Correction:

...Acquisition offer until 12 midnight on Monday, Dec.
5, 1988. The proration period will also **expire** at that **time**.
The

extension does not amend or waive any term or condition of the RJR
Acquisition offer other...

...time of expiration of the offer,
including without limitation the right to further extend the **offer**.

No significant **number** of shares of common stock or Series B
cumulative preferred stock have yet been tendered...

11/K/4 (Item 1 from file: 20)

Dialog Global Reporter

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(USE FORMAT 7 OR 9 FOR FULLTEXT)

California Home Builder Holds Internet Auction for Vacant Houses

...with this predicament, Kaufman & Broad, the state's largest home
builder, plans to hold an **auction** over the Internet. It will be the
first such electronic close-out **auction** held by an industry leader.

Within the home building industry, Kaufman & Broad's experiment
with Internet **auctions** is praised by some as innovative and proof of
business savvy. But others anticipate an angry reaction from buyers who
have closed home sales for prices that an **auction** may undercut.

On Oct 29, would-be buyers will be able to stake claim to...

...are ready for occupancy or under construction with completion expected
by Nov. 30.

Real estate **auctions** were last popular in Southern California
during the deep recession of the early 1990s when...

...it as a positive marketing approach."

Last July, Moss said, the company used an Internet **auction** for
10 single family homes and nine lots that comprised the first phase of a
Coachella Valley subdivision called Bermuda Dunes.

Moss said the success of that **auction** and a traditional vocal
auction of homes in Sacramento a year earlier encouraged the home
builder to try the computerized **auction** process in the Inland Empire
on a much larger scale, this time to close sales...

...number of projects all at once.

Although Kaufman & Broad insists that the properties it is
auctioning are not depressed, bidders are expected to be attracted

to the **auction** with the hope of landing a deal.

"I think everyone is looking for a bargain...

...president of sales for HomesDirect.com, the Pasadena-based company that will be conducting the **auction**.

In response, she said, "We try to make sure the opening bids are at a ...

...listed for \$189,000 will have a minimum asking price of \$170,000 at the **auction**.

Because of the cost savings that an **auction** generates by speeding up sales, Moss said, Kaufman & Broad can sell the houses below list...

...Moss and Burgin said while would-be home buyers can learn details about the Internet **auction** on the Kaufman & Broad and HomesDirect.com Web sites, participants are encouraged to visit the subdivisions in person, where they can obtain **auction** registration cards.

It is necessary to be registered and financially qualified by a mortgage lender before the **auction**, according to the **auction** officials. And a pre-**auction** class will be held where registrants can practice **bidding**.

On **auction** day, bidders can place their bids via the Internet from home or in person at the **auction** site in the Hilton Ontario Airport Hotel. **Bidding** starts at 2 p.m.

Charles Plott, a professor of economics at CalTech and developer of the **auction** software that Kaufman & Broad is using, said the software is designed to allow a builder to get the highest price possible from the **bidding** while giving bidders the best chance to buy the house they want most at an...

...this work, Plott said, is a system in which all of the houses in the **auction** are available for **bidding** simultaneously. The top bids for each home appear on the computer screen, allowing a bidder who is

priced out of the **bidding** on his or her favorite house to immediately start **bidding** on an alternative house.

The **auction** on all the homes starts and **stops** at once, with the **bidding time extended three minutes** after each fresh bid. Burgin said she expects that the 65 homes will be auctioned in about two hours.

Compared to an oral **auction**, Burgin said, Internet **bidding** is "leisurely." At an oral **auction**, she observed, houses are generally sold one after the other, with each sale completed in ...

...Meyers Group, a real estate consulting firm, said Kaufman & Broad's use of an Internet **auction** as a selling technique is "very creative" and shows that the home selling market is...

...than it has ever been and so it is forcing companies that require a large **volume** of sales **activity** to search out new ways to

stimulate activity," Johnson said.

Stephen Kim, a building analyst with Solomon Smith Barney, said although the **auction** may bolster Kaufman & Broad's Southern California sales for the current fiscal year, which ends Nov. 30, he does not believe the timing is critical. He noted that the **auction** represents only 65 of 2,100 homes that Kaufman and Broad will sell in Southern he said.

David Dickey, a real estate consultant, said Internet **auctions** are "a fantastic idea" for lowering sales costs and ultimately keeping home prices down. But he cautioned that while **auctions** may be fine for opening sales on a new project, they may create a customer...
...said.

Bill Lo of Pacific Century said unless a property is truly distressed, an Internet **auction** is a bad idea that will alienate lenders as well as former buyers. "If I...

...guide to establishing fair market value," Lo said.

However, Moss said if bidders at an **auction** get a house at a lower price than buyers before them, the discount comes with...

20001012

11/K/5 (Item 1 from file: 15)

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Text:

...hearing of the Ontario and Quebec Securities Commissions decided to continue the SRP until its **expiration** but not to permit an **extension**. Five **days** before the **expiration** of its bid, Ivanhoe increased both its per share **bid** and the **number** of shares it would purchase. This bid has interesting features. First, the initial bid was...search for a new bid.

Important underlying premises in the OSC decisions are preference for **auctions** in takeover situations, the right of shareholders to sell shares, the principle not to comment...

...Chairman of the Board stated there was a chance of a third party entering the **auction**. In the latter, there appeared to be movement toward increasing the period over which a...

...potentially negative impact on potential bidders when it is known that there can be an **auction** as a result of a bid and therefore, a higher premium.

If the purpose of Of course, the extended waiting period and resulting **auction** may have an impact on premium paid, expected profitability of the transaction to the initial bidder, and ultimately on **number** of **bids**.

In summary, due to the nature of regulatory decisions in Canada, the SRP, while it may slow up a takeover, or encourage an **auction**, will not stop it. The SRP is not a good long-term entrenchment strategy. Thus...

11/K/6 (Item 2 from file: 15)

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Text:

...our own creativity or to dismiss our own creative ideas as worthless. For individuals the **level** of creative **activity** and the value on which an individual places on his or her own creativity tend...ways could you sell your product or service? Have you considered direct mail, telesales, retail, **auctions**, office to office, wholesale, joint marketing with competitors, joint marketing with associated products? Which new...annum, $20 \times L1,000 \times 2 = L40,000$. If you can double the overall **level** of business **activity**, increasing your **number** of customers to 40, the average sale to L2,000 and the frequency of purchase ...

...i.e. $40 \times L2,000 \times 4 = L320,000$. In fact, doubling the overall **level** of **activity** increases sales eight times. There are 20 ways of increasing your customer base. There are...considered joint ventures with other businesses, to sell your product by direct mail, trade shows, **auctions**, national advertising, etc.?

21. Twenty-five ways to increase your sales income (which you

have...pay your suppliers roughly corresponds to the day on which your suppliers refuse to give **extra** trade credit. The **day** you **stop** paying the wages of employees roughly corresponds to the day employees stop working for you...marginal costing)

In business some costs are volume-related in that they fluctuate with the **level** of **activity** measured by either output or sales. These are called variable costs and usually include expenses...sale of assets, sale and leaseback of property, reduction of directors' remuneration, delay tax payments, **auctioning** of stock, temporary suspension of production. Carry out a regular review of stock, prepare an...

11/K/7 (Item 3 from file: 15)

ABI/Inform(R)

Business-to-business online auctions: key issues for purchasing process improvement

Abstract:

This paper describes the process for conducting downward price business to business online **auctions** over the Internet for direct material purchasing and presents common issues, process improvement opportunities, and the interpretation of **auction** results.

Text:

...individual buyers, supplier location, electronic communication system, etc. This represents the essence of traditional competitive **bidding** and order fulfillment process.

The purchasing process for custom components tends to be elaborate, time...

...who often view themselves as having very limited resources. In recent years, business-to-business **auctions** over the Internet have emerged as one option to reduce purchasing costs.

Business-to-business online **auctions**

Business-to-business online **auctions** are downward pricing, or reverse **auctions** performed in real time over the Internet or through a private network (Vigoroso, 1999; Baatz...

...by current or new suppliers using proprietary software. The model for business-to-business online **auctions** of industrial parts, raw materials, and commodities was pioneered by a company called FreeMarkets Inc...

...million in capital (FreeMarkets, 1999; Hennessey, 1999).

Companies that compete in business-to-business online **auction** market space include Ariba, CommerceOne, EDS/AT Kearney, FreeMarkets Inc., and VerticalNet, (Web Sites, 2000). The...

...and sellers in electronic marketplaces. These intermediaries create well-defined rules of engagement for online **auctions** and also provide related value-added services such as market analysis, consultation, and bid analysis...

...of point-to-point buyer-seller interactions. Companies may specialize in business-to-business online **auctions** for indirect materials such as shop consumables, direct material such as custom-designed components, or... Technologies Corporation, Westinghouse, and Whirlpool, as well as the

Commonwealth of Pennsylvania, have utilized online **auctions** to procure goods and services. Major corporations in the EU are also discovering this purchasing...

...try. The potential market is vast and includes the Global 1000 corporations. Why? Because online **auctions** can achieve gross savings ranging from 5-40 per cent (Tully, 2000), with an average...

...raise prices in competitive markets. This makes cost reduction a much more attractive alternative.

Online **auctions** work best where there are many suppliers with available capacity and the buyer has leverage...

...to save 4 per cent. So how does it work?

The business-to-business online **auction** process

Figure 1 shows a typical online **auction** process, from project start to bid day. The first four steps are classical commodity management...

...US\$100,000-1,000,000. The team will normally prepare 10-20 lots for **bidding**. It is critical that lotting be performed very well as it helps suppliers recognize which parts fit their core competencies and creates the foundation for successful online **auctions**.

The team then identifies suppliers that are capable of performing the work and prepares a...

...of parts. Missing technical data will slow down the process and likely result in poor **auction** results. It is at this point that some suppliers decline further participation. The reasons vary...

...The team will also train the supplier in the software used to manage the online **auction** event, **auction** rules, tactics to avoid, etc. As bid day approaches, suppliers work to finalize part and lot pricing, and determine the price at which they will cease **bidding**. Suppliers should refrain from revising their final offer downward during the online **auction** since irrational decisions are not likely to serve the supplier's interests. The bid list **Bidding** commences starting with lot one and continuing until all lots have been bid upon. **Bidding** for each lot ends at a specific time of day unless the **level** of **activity** near the end of the **auction** justifies **extending** the **closing time**. If there are more than ten lots, a second round of **bidding** will take place a day or two later. The actual number of suppliers that participate...

...obligated to accept a bid, and many other factors affect the final award decision.

Interpreting **auction** results

A record of bids is shown in Figure 2 for a selected group, or...

...another supplier. The difference between current and desired price can thus represent switching costs. The **auction** is conducted in real-time, and each supplier witnesses anonymous bids as they are placed by competitors. The price transparency and dynamic **bidding** usually results in dramatically lower pricing than the buyer is able to achieve by traditional...

...delivery performance, or other factors may preclude the lowest bidder from winning the lot. Post-**auction** bid analysis and follow-up

supplier visits are important parts of the total process.

It...

...to note that the suppliers see different information than the buyer does during the online **auction**. Specifically, the suppliers do not know the current price, but they are aware of the...

...the names of the other bidders.

Figure 2 is an example of a successful online **auction** in which the price of the lot fell well below the buyer's desired price...

...losses incurred during the detailed bid analysis process, as described below.

Upon completion of the **auction**, the buyer will evaluate the bid data. The buyer usually requests additional detailed information from... awarding work to incumbent suppliers would discourage other suppliers from participating in downward price online **auctions**.

If the part is new to the supplier, then they must first obtain updated prints...

...one year depending upon market demand.

Figure 3 shows cycle time for the entire online **auction** process, from project start to the accrual of the total amount of savings, for a...

...is apparent in this example that the time it takes to execute the entire online **auction** process can be similar to the time it takes to perform face-to-face negotiations...

...number of suppliers, late parts from low volume suppliers, recurring defects, overproduction, etc.

The online **auction** process often includes the participation of manufacturing engineers from the buyer's organization to evaluate...

...in cost analysis, as are some automotive and electronics manufacturers,

then the value of online **auctions** decrease significantly. Sixthly, the buyer receives the entire savings upfront, rather than incremental year-over-year reductions.

Suppliers also benefit from online **auctions**. Firstly, leveling the field removes some of the advantage enjoyed by incumbent suppliers. Suppliers that...

...seller. That is to say, qualified suppliers may be invited to participate in future online **auctions** sponsored by their current customer, or they may have the opportunity to win business from...

...decision-making authority than may be otherwise possible.

Thirdly, the suppliers that participate in online **auctions** are able to see the market price and validate their competitiveness. Thus, suppliers that dislike online **auctions** should be encouraged to participate, even if they place only one high bid, because they...

...or process families enables the supplier to focus on its core competencies. Sixthly, the online **auction** process usually results in a multi-year long-term agreement. This type of contract is...

...whose skills have been significantly reduced in value as seen by management. Downward price online **auctions** replace the core skill of negotiation possessed by human workers. Surely procurement personnel will be needed in businesses that employ online **auctions**, but the primary role and desired competencies are likely to change. Over time, there will ...cost drivers, estimating total cost, facilitating supplier teams in process improvement activities, etc.

The online **auction** process may temporarily increase the number of suppliers, since similarly configured parts may have been...

...producers. Thus it would be difficult to eliminate a supplier directly from a single online **auction**, as they probably manufacture other types of parts for the buyer. This would run counter...

...the process and that its goal is to level the field in preparation for online **auctions**, being careful to note that only qualified suppliers, those with exemplary delivery and quality performance...

...due to financial losses sustained by the supplier. That would defeat the purpose of online **auctions**. Thus, suppliers must approach the **bidding** process carefully, determine their final offer in advance of bid day, and not be tempted to place bids lower than their pre-determined final offer. One goal of online **auctions**, for both buyer and seller, should be to ensure defect-free outcomes. This can be...

...thorough understanding of the process and ensuring disciplined execution in all phases.

Unresolved questions

Online **auctions** of custom-designed industrial components are a new phenomenon brought about in large part by...

...does the price reduction come from? Is it from cost or margins? Or, are online **auctions** simply an efficient means for shopping for lower overhead cost structures? Does lower overhead result...

...the fact that they have little or no leverage to induce participation?

(2) Are online **auctions** a one-time event, or will they be repeated? Suppliers participate with the expectation that...

...al., 1999)? Does trust in business relationships matter anymore? If it does, then does re-**bidding** the work make sense? Will buyers and sellers revert to traditional, off-line, human negotiation...

...terms by manufacturing goods using common high-cost batch-and-queue production methods? Will online **auctions** propel suppliers to adopt lean production, since it is the only viable means of systematically...

...achieve technical performance at the expense of cost, delivery, and quality performance?

(4) Do online

auctions portend a reduction or elimination of the in-house buying function? Will production parts sourcing be outsourced to online **auction** companies, just as non-production products and services ...in businesses unaccustomed to identifying and eliminating the root cause of non-conformances? Do online **auctions** help reduce waste in operations (Womack and Jones, 1996)? If they do not reduce waste...

...do them?

(5) Is it logical to engage in both supply chain management and online **auctions**? Do supply chain management and supplier development activities conflict with online **auctions**? Can they be done simultaneously by the same organization, without creating obvious or unresolvable conflicts...

...encourage the cooperation of lower tier suppliers to support and sustain the results of online **auction** events? What is the incentive for lower-tier suppliers to participate? Will sub-tier suppliers consolidate and resist efforts to reduce prices?

(6) Are online **auctions** a truly new method of procurement, or do they simply facilitate traditional heavy-handed procurement methods? Are online **auctions** simply the newest way to obtain price reductions from suppliers? Will buyers be motivated to gain a competency in cost analysis and an understanding of cost drivers if online **auctions** do

the job for them? Will buyers be motivated to understand total cost? Are online **auctions** consistent with the development of relationships that professors and CEOs claim are so important to business? Will workers, tired of traditional purchasing tactics, find participation in online **auctions** to be a more fulfilling activity? Will students be drawn to a career in supply chain management or away from it? To what extent will online **auctions** facilitate the movement of work to developing nations? Is this shift inevitable, will it force...

...in the global economy? Is this outcome acceptable, unacceptable, or rightly inevitable?

(7) Do online **auctions** fundamentally improve productivity? Is lower price equivalent to an improvement in productivity? Or do online **auctions** lead to improvements in productivity? Will productivity be driven incrementally by functional departments focused on...

...adoption of lean production and its associated leadership model (Emiliani, 1998a; Emiliani, 1998b)?

Conclusion

Online **auctions** conducted over the Internet offer substantial sales growth opportunities for the intermediaries and substantial unit...

...is likely that most of the Global 1000 corporations will experiment with downward price online **auctions** for production materials simply because they change the nature of competition. Management will find it...

...it comes to actions directed toward suppliers (Emiliani, 2000b). Many companies will likely adopt online **auctions** as part of their ongoing purchasing process or perhaps even outsource the bulk of purchasing activity to online **auction** firms.

It is apparent, however, that online **auctions** are best suited for corporations that do not understand the cost of the materials they purchase. Thus, the number of companies contracting for online **auctions** will be indicative of the number of companies that do not understand the cost of...

...careers.

It should become evident that the dominant production system used by buyers of online **auction** services is batch-and-queue. The fatal flaw of this production system is now fully...

...queue producers and drives self-similar behaviors in associated supply chains.

The downward price online **auction** is simply traditional purchasing aided by new technology. It is an attractive technological solution for...

...and conditions. As a result, an unintended consequence of business-to-business downward price online **auction** process is that it will likely delay the adoption of modern supply chain management and...

...order to truly eliminate waste and reduce total costs.

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Caption: Figure 1; The business-to-business on-line **auction** process; Figure 2; An example of the bid record generated during an online **auction** for one lot of custom-designed machined parts; Figure 3; Schematic diagram showing the cycle time for the entire online **auction** process for custom-designed components

Descriptors:

Auctions;

Classification Codes:

11/K/8 (Item 4 from file: 15)

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Text:

...Several authors address features and performance of the national SO sub 2 market, for which **auctions** started in 1993. Ellerman & Montero (1996) argue that the observed low allowance prices in that...

...sub 2 market design. Joskow et al. (1996) investigate if the features of the EPA **auction** prevented efficient outcomes in the market for SO sub 2 emissions.

(Table Omitted)

Captioned as...

...performance has been very limited (see Fromm & Hansjurgens, 1996, for information on the first two **auctions**, as well as SCAQMD, 1996). Hall & Walton (1996) provide interesting background on some of the...of RECLAIM Trading Credits (RTCs) for each future compliance year, based on the facility's **activity level** and current emission factors. The emission factors used to determine the future RTC allocation were...

...measures to ensure it is meeting its compliance cap before penalties are imposed. The reconciliation **period extends** for 60 **days** after the **expiration** date of the RTCs.

In addition, the actual RECLAIM market has been established with two...

...market. The SCAQMD does not need to approve trades, nor does it operate a formal **auction** or clearing-house for RTCs. It does allow facilities to post call and put offers...

...by two private trading systems: the Automated Environmental Credit Exchange (ACE); and the Clean Air **Auction** (CAA). ACE was developed ...operated through the Internet and features five days of trading every quarter. The Clean Air **Auction** is run by Cantor Fitzgerald, a brokerage firm. Cantor Fitzgerald holds semi-annual **auctions** during the reconciliation period.²⁷

As discussed above, RTCs are allocated to facilities and not...

...SCAQMDs electronic bulletin board. In analyzing RECLAIM we therefore use price data from Cantor Fitzgerald **auctions** instead. They report vintage-specific prices, however, only for a subset of the overall market ...1996). In the case of RECLAIM the existence of brokers, electronic bulletin boards and the **auctions** would all make it appear that the cost of finding someone to trade with would...
...changes of ownership for specific facilities.

For trades conducted at a price, data from RTC **auctions** are likely to provide a better source of information than SCAQMD's bulletin board (see ...

...Figure 3 indicate the price trends that have resulted from Cantor Fitzgerald's first four **auctions**. We would like to highlight the following two points: (1) the prices of RTCs are...

...average RTC prices are increasing for later vintages. The price for 1995 RTCs at the **auction** was only \$0.0665 per lb of NO.; for RTCs that expire in 2010 the...577); 1995 (\$577); 1996 (\$9434); 1997 (\$9151); 1998 (\$8877); 1999 (\$11 257).

Footnote:

27. The **auctions** allow prospective buyers and sellers to submit offers to buy or sell RTCs. Based on...

...price is derived by algorithm for each vintage traded. In order to participate in the **auction**, a fixed up-front fee of \$150 is charged to each participant, regardless of an...

...Fitzgerald 8 August 1995 with hopes to sell them in Cantor Fitzgerald's Clean Air **Auction**. After no buyer was found at the **auction** for those RTCs, on 28 ...other issues, bought 2.9 million pounds of 1994 RTCs at the 3rd Clean Air **Auction**.

38. This type of analysis might serve as a framework to compare RECLAIM's performance...

...Utilities supplied 75% of the NOx RTCs that were traded at the first Clean Air **Auction** equipment (ibid.). An additional explanation for why utilities have been able to sell many of...

...of the 258 trades that reconcile facilities, balances were brokered trades from the Clean Air **Auction**. When a facility finds itself during the reconciliation period short of some RTCs, and it...allowance trades, Contemporary Economic Policy, 14, April, pp. 79-94.

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11/K/9 (Item 5 from file: 15)

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Text:

...Review.

Wages. Minimum wage was the most active area of legislative interest in 1996 with **activity** at the Federal **level**; at the State level through new legislation, ballot measures, and administrative actions; and in several...30 days prior to expiration of the registration, but it cannot be processed before the **expiration** date, a 90-day **extension** of registration is authorized if the applicant has submitted a complete application, owes no outstanding...public construction contracts was amended to require that a nonresident contractor, at the time of **bidding**, disclose to the awarding agency all bid preferences received from the State or country where...or a fine of up to \$1,000. A minimum 18month period of ineligibility for **bidding** on or being awarded work by a public agency was established for firms found in...

11/K/10 (Item 6 from file: 15)

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Abstract:

...that pertains to the target firm's stand-alone value or its unique synergy potential. **Bidding** firm shareholders experience insignificant returns, and these returns are not affected by any of the...

Text:

* Research reveals significantly higher valuation effects accompanying cash merger offers for both target and **bidding** firms than the valuation effects accompanying stock offers (Asquith, Bruner, and Mullins (1983), Wansley, Lane...

...even when there is no subsequent bid, indicating a permanent revaluation of target share value. **Bidding** firm shares are not permanently revalued in reaction to either merger or termination announcements, whatever...

...persist even after we control for variables shown in previous studies to influence target and **bidding** firms' wealth effects around merger announcements. We conclude that these findings are consistent with synergy ...

...several possible reasons. Cash offers produce higher returns than stock offers for both target and **bidding** firm shareholders. This cash premium is attributable to a signal that the medium of exchange...

...to the market. The party possessing the signaled information may be the

target and/or **bidding** firm management, and the information may be based on (1) synergy, (2) target firm stand-alone value, or (3) **bidding** firm stand-alone value. [1]

We present our hypotheses and discuss the predicted share price reactions both around the initial merger announcement and for a **period extending** from the initial announcement through **termination**. Analysis of terminated merger proposals will let us better discern among hypotheses.

A. Synergy Hypothesis

Synergy explanations assume that private information regarding the synergistic value of either the target or **bidding** firm is revealed to the market through the offer medium. A merger is motivated by...

...resources results in economic gains. Berkovitch and Narayanan (1990) develop a model positing that the **bidding** firm has private information concerning potential synergistic value. According to this model, the offer medium signals private information to the market, where high-synergy **bidding** firms use cash and low-synergy **bidding** firms use stock. This will cause **bidding** firm shares to react more favorably to cash offers than to stock offers at the...

...assume there is no reason for this synergistic value to persist after merger offer termination, **bidding** and target firm shares will fully revert to pre-announcement levels.

Similarly, Fishman (1989) asserts that both target and **bidding** firms have some private information on synergies, which is the primary determinant of the offer medium. A **bidding** firm may use a stock offer to elicit a signal of the private information possessed...

...failure of a stock offer reveals information about a target firm's private information. A **bidding** firm that is more certain of its information on target value will make a cash...

...Fishman model predicts that cash premium returns are split between the target firm and the **bidding** firm. In a highly competitive market, the target firm will capture most or all of the cash premium. If the **bidding** firm offers a unique attribute that enables potential synergy, the **bidding** firm will capture most of or all of the cash premium. At acquisition termination, the...

...the cash premium will continue for the target firm shares, while it would dissipate for **bidding** firm shares.

B. Tax Hypothesis

The tax hypothesis, a special case of a generalized synergy...are able to delay the payment of capital gains taxes until subsequent sale of the **bidding** firm's shares. Therefore, target shareholders demand a cash premium that at least offsets any immediate tax obligation.

For the **bidding** firm, the primary tax benefit of a cash exchange is the ability to step up...

...acquired assets are substantially higher than the benefits from NOL carryforwards and recapture tax deferment, **bidding** firms are willing to pay the premium necessary to make target shareholders indifferent between a...

...tax obligations results in a tax synergy. This tax synergy is split by target and **bidding** firm shareholders depending on the presence of competition and informational asymmetry. If we assume a...

...no new information has been revealed to the market during the offer period. For a **bidding** firm, any premium occurring in a cash offer is offset by the value of acquired tax benefits. The tax hypothesis gives us no reason to expect the price of the **bidding** firm's shares to depend on the offer type, around either initial announcement or subsequent...

...is that the proposed medium of exchange in a merger signals private information of the **bidding** firm's value. If the **bidding** firm's managers have private information on the intrinsic value of their

own firm, they...

...in the most profitable way for their own shareholders. Consistent with Myers and Majluf (1984), **bidding** managers act in the interest of passive shareholders by offering stock if they believe their...

...DeAngelo, DeAngelo, and Rice (1984) and Hansen (1987)). [3]

Since the offer medium signals the **bidding** firm's value, target firm shares experience no differential revaluation based on offer medium. For the **bidding** firm, however, a cash offer signals "good" news to the market, and a stock offer signals "bad" news. Therefore, around the initial announcement date returns to the **bidding** firm's shareholders will be higher in the case of cash merger offers. Because the...

...to the market pertains to intrinsic firm value, and not potential synergies, we expect the **bidding** firm's share price will continue to reflect this information even after termination of the...

...a way of pre-empting competing bids. Under this investment explanation, the target and/or **bidding** firms are assumed to have private information on the target firm's stand-alone value. If the **bidding** firm has information that the target firm is undervalued in the market, it will offer...

...on their private information of target firm stand-alone value.

As under the signaling hypothesis, **bidding** and target firms will

split the cash premium depending on competition. Target shareholders realize a...

...termination because the offer type signals stand-alone value. In a perfectly competitive market, the **bidding** firm's share price is not affected by offer type either at the initial announcement...

...Street Journal (WSJ). We define the announcement date as the first public announcement by the **bidding** firm of a clear intent of acquisition. Data regarding the proposed medium of exchange, the...

...are obtained from the WSJ and Mergerstat Review. Daily stock returns and outstanding shares for **bidding** and target firms are obtained from the University of Chicago's Center for Research in...willingness to tender shares. [4]

From the initial sample of 207 target firms and 207 **bidding** firms, 24 observations are dropped because the announcement of the merger could not be confirmed...

...15 target firm observations are eliminated because of insufficient returns data. Of the remaining 183 **bidding** firms, 47 observations are lost because the firms are not listed, and 13 observations are dropped because of insufficient returns data. The final sample consists of 84 target and 123 **bidding** firms. [5]

Table 2 presents descriptive statistics for target and **bidding** firms in the final sample. (Table 2 omitted) Of the 84 target firms, 44 offered ...

...disclosed or is some combination of cash, stock, debt, and preferred stock. Of the 123 **bidding** firms, 59 offered cash and 38 stock.

We compare our sample of terminated merger proposals to 174 successful mergers from the same time period, 1980 to 1988, in which the **bidding** firm is listed on the NYSE or the AMEX and the offer medium is disclosed...

...after termination of the first offer. Forty offers are terminated by target management, 17 by **bidding** management, 8 by mutual agreement between target and **bidding** management, and 19 by an outside party.

[6] A majority of the **bidding** firms (77 of 123) do not make a subsequent bid. Fifty-four offers are terminated by target management, 27 by **bidding** management, and 14 offers by mutual agreement, and the remaining 28 terminations are forced by...

...preceding the initial announcement, is \$492 million for target firms and \$1,657 million for **bidding** firms.

There is evidence of an acquisition program in place prior to the initial offer for 15 target firms and for 46 **bidding** firms. We find that for 15 target firms and 20 **bidding** firms there are competing bids for

the target firm. Previous stock ownership is present in 27 target firms with average ownership interest of 16.28%, whereas 23 **bidding** firms have a foothold position averaging 13.78%.

For a majority of the target and **bidding** firms, the number of trading days between the announcement and the termination of the merger bid is less than 60 days (60 of 84 target firms, 92 of 123 **bidding** firms). The longest interval is 168 days for a target firm and 259 days for a **bidding** firm.

III. Excess Returns

Valuation effects on shareholders in target and **bidding** firms are estimated over four analysis periods: announcement, interim, termination, and overall period. The announcement...

...to measure permanent shifts in a firm's market value.

Stockholder returns for target and **bidding** firms around the announcement and subsequent termination of merger proposals are examined using the methodology...cash offers (CAR = 9.72%) than in terminated stock offers (CAR = -8.65%). [10] Even **extending** the overall **period** 250 days past the **termination** date, we show returns for cash offers (CAR = 14.43%) are significantly higher ($z = 2...$

...is significant ($z = 3.07$). This difference remains significant ($z = 2.10$) for an overall **period** that **extends** to 90 **days** after **termination** with significant, positive overall returns of 5.25% in cash offers and insignificant, negative returns...

...difference is not significant ($z = 0.79$), this may be primarily because of the small

number of stock **offers** in our sample that receive a subsequent bid ($N = 2$). The difference remains large, but...

...the merger proposal is consistent with the investment and synergy hypotheses (see Table 1).

B. **Bidding** Firm Returns

The valuation effects on **bidding** firm shareholders from the initial merger announcement through subsequent termination are presented in Table 4 ...

...the interim period, termination period, and overall periods. Additionally, the pattern of insignificant returns for **bidding** firms' shareholders is not dependent on medium of exchange or presence of a subsequent bid. [13, 14] Our results indicate that the medium of exchange offered does not signal **bidding** firm value, so we cannot find support for the hypotheses of Myers and Majluf (1984 **bidding** firm

decides; $T1 = 0$, $T2 = 0$, $T3 = 1$ if the decision is made mutually; $T1...$

... $T3 = 0$ if an outside party decides); PROG is a dummy variable indicating whether the **bidding** firm has a previously announced acquisition program (PROG = 0 if there is no announced program...

...announced program); FOOT is the percentage of the target firm's stock held by the **bidding** firm (foothold position) before the merger announcement; SIZE is the relative size of the proposed...

...value of the target firm's common stock divided by the market value of the **bidding** firm's common stock; and COMPETE is a dummy variable indicating whether there are competing...

...1989) find that the valuation effects in terminated mergers differ depending on whether target or **bidding** management terminates discussion. Presence of an acquisition program is included to control for previously incorporated market reactions. With a previously announced acquisition program, market reaction for **bidding** shares is shifted to the announcement of the acquisition program from a subsequently announced bid...

...Foothold position, measured as the percentage of the target firm's stock held by the **bidding** firm before the initial merger announcement, controls for informational effects from the impending merger announcement ...

...for problems in measuring abnormal returns due to relative size differences between target firms and **bidding** firms (Asquith, Bruner, and Mullins (1983)). The presence of competing bids is included because competition...

...to offer a potential suitor.

Results of various versions of the general regression model for **bidding** firms reveal no significant coefficients in any regression and therefore are not reported. These findings provide evidence that the **bidding** firms experience no significant revaluation as a result of information related to a merger bid...occur simultaneously with the investment and/or synergy explanations. The absence of valuation effects for **bidding** firm shares provides evidence contrary to the response predicted by the financing hypothesis, suggesting that offer medium does not signal private information about **bidding** firm value.

1 Alternatively, the offer may act (at initial announcement) to signal differential probabilities...

...and Kim (1988) demonstrate that competition for acquisition of a target will decrease returns to **bidding** firms but increase returns to target firms.

3 Support for this financing explanation has been...

...in our sample of target firms, 22 are terminated by target management and 10 by **bidding** management for economic reasons; two because of regulatory action; two because of shareholder resistance; and one because an offer for the **bidding** firm was made by an outside party. In seven cases, the reason could not be determined. Of the 22 stock offers, five are terminated by target management and three by **bidding** management for economic reasons; two because of regulatory action; one because of shareholder resistance; and one because an offer for the **bidding** firm was made by an outside party. In ten cases, the reason could not be determined.

7 Of the 59 cash offers in our sample of **bidding** firms, 18 are terminated by target management and 15 by **bidding** management for economic reasons; 11 because the target firm is acquired by another firm; five...

...of regulatory action; one because of shareholder resistance; and one because an offer for the **bidding** firm was made by an outside party. In eight cases, the reason could not be determined. Of the 38 stock offers, nine are terminated by target management and seven by **bidding** management for economic reasons; four because of regulatory action; three because of shareholder resistance; two...

...alternative measures of the termination period to evaluate post-termination valuation effects. The alternative measures **extend** the post-**termination period** to +30, +60, +90, and +250 days after the termination date.

9 We also examined...

...firms based on medium of exchange do not result from a transfer of wealth from **bidding** firms to target firms. Even though **bidding** firms are on average approximately four times larger than target firms, this magnitude does not...

...51-83.

Asquith, P., R.F. Bruner, and D.W. Mullins, 1983, "The Gains to **Bidding** Firms from Mergers," Journal of Financial Economics (April), 121-139.

Asquith, P. and D.W...Journal of Finance (December), 1275-1284.

Fishman, M.J., 1988, "A Theory of Preemptive Takeover **Bidding**." RAND Journal of Economics (Spring), 98-101.

Fishman, M.J., 1989, "Preemptive **Bidding** and the Role of the Medium of Exchange in Acquisitions," Journal of Finance (March), 41...

...Financial Economics (April), 85-120.

Travlos, N., 1987, "Corporate Takeover Bids, Methods of Payment, and **Bidding** Firms' Stock Returns," Journal of Finance (September), 943-963.

Wansley, J.W., W.R. Lane...

11/K/11 (Item 7 from file: 15)

ABI/Inform(R)

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Text:

...of television companies (Carlton and Central Independent Television, for instance). There have also been a **number** of agreed **bid** situations. However, takeovers of public companies will undoubtedly continue in the UK as an important...88 days before the outcome is known. Also, if a competing bidder interferes, and an '**auction**' ensues, the first bidder will adopt the second bidder's timetable, in which case there ...for simplicity in a public offer, mean that such variations are relatively rare.

* The controlled **auction** whereby competing bidders, from the UK and internationally, are sought has increasingly become feature of...

...practice, knowledge of which is important for potential purchasers approaching a target being sold by **auction**. Controlled **auctions** of listed companies, as opposed to divisions of them, are not normally a real possibility...A+28 (D Day)--Offer document posted

D+14--Defence document posted

D+21--First **closing** date (assume offer **extended**)

D+39--Last **day** by which target can publish significant financial information

D+42--Shareholders withdrawal of acceptance right...

11/K/12 (Item 1 from file: 16)

Gale Group PROMT(R)

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Supplier Number: (USE FORMAT 7 FOR FULLTEXT)

Text:

Details of **bidding** terms for the 145 search blocks offered under the "Argentina Plan" have been unveiled in London by hydrocarbons secretary Luis Prol. **Bidding** for South Argentine onshore blocks begins 31 March and closes 30 June. For North Argentine...

...and period three two years less than period one. The work programme with the highest **bid** spread over the **number** of years chosen will win each block.

No company or group can hold more than...

...held by individual firms taking part in differently-constituted consortia. Relinquishment is 50% at the **end** of each **period**.

Extensions are available, but the research period remains at four years, though offshore the total available...

19920403

11/K/13 (Item 1 from file: 148)

Gale Group Trade & Industry DB

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Army Reverse Auctions: An E-Commerce Acquisition Tool.(electronic commerce)

Text:

How the USA Army is using electronic **auction** tools and techniques to allow users to save time and money and to get goods...

...pay the best price and get quality and value in return. The advent of reverse **auction** technology coupled with less restrictive regulatory guidelines enabled the Army and other executive departments to...

...Prior to 1997, Defense agencies were prohibited by the Federal Acquisition Regulation (FAR) from using **auctions** as a method of procuring goods and services. Then, federal acquisition reform resulted in a...

...practically unnoticed by the procurement community because there was no easy way to conduct an **auction** without it being live. Technology, specifically the Internet, changed that.

Internet Influence

After the introduction...

...and improved efficiency. One enhancement that grew out of this rapid evolution was a rudimentary **auction** capability. In the commercial sector, sites set up electronic **auctions** to sell consumer goods to the highest bidder on behalf of themselves or for individuals...

...by consumer interest in this new "toy," an ever-increasing number of websites appeared using **auction** techniques. This increased competition pushed technology improvements at a rapid pace. As a result, users became more sophisticated in using **auction** tools that kept pace with the improvements being promulgated by the continually improving browsers and **auction** websites. **Auction** sites today make it easy to find product lines and products that interest the consumer...

...is simple. Competition and consumer interest continues to fuel software improvements.

Industry Interest

As consumer **auction** sites continued to evolve, industry groups looked at the capabilities of using this technique to...

...manufacturing, while relying on others' expertise in providing auction services. This also allowed for competing **auction** software vendors to continue to improve their products and services to attract new clients and retain existing ones. **Auction** companies received fees as a percentage of sales, a fixed fee per transaction, or a...

...of leaders in the public sector.

There were two major variations of this technique, forward **auctions** and reverse **auctions**. In a forward **auction**, the seller **auctions** off his products or services, and the bids escalate until there is a winner who normally is willing to pay the highest price. In a reverse **auction**, the opposite occurs. The buyer describes what he is interested in buying and the sellers...

...recognize the potential for government savings and asked three Army activities to consider piloting reverse **auction** techniques. One of those three, the Army's Communications-Electronics Command (CECOM), under the leadership...

...in an Internet environment. A number of the presentations dealt with the use of reverse **auctions** in the commercial and consumer product field. When tasked by the Army to set up...

...The team's research indicated two possible approaches: use a vendor to set up each **auction** and run the process for a by-event fee; or license a commercial software product...

...This approach provided a capability on the desktop of every contracting officer to run reverse **auctions**. It also allowed for reverse **auctions** to be run for multitudes of smaller dollar value items, which would not be possible...

...be responsible for assuring fair and reasonable prices for Army procurements.

Army First

The reverse **auction** process software that was found for the pilot was actually two distinct programs that were...the tool to use. On May 17, 2000, CECOM ran the Army's first reverse **auction**. Less than an hour later, the contracting officers had purchased a secure fax machine that...

...With Dr. Oscar present, CECOM saved 50 percent on the purchase of notebook computers.

The **Auction** Tool

The software actually supplies three tools in one, providing users with more options. It...

...product for procurement. Buyers can then buy directly from an electronic catalogue, an ongoing forward **auction**, or by setting up and running a reverse **auction**.

Spidering

The first aspect of the **auction** tool to be utilized is the web spider, a specialized search engine that can be...

...a critical parameter. This creates an initial best value capability where prior to running an **auction**, certain tradeoffs among price, performance, and other attributes such as availability, warranty, and payment terms...

...or, in the user's analysis, little benefit would be derived from establishing a reverse **auction**, the tool allows for the user to make a selection, based on the competition that has already occurred, and go directly to the catalogue site and buy now.

Forward **Auctions**

Products and sources in the ranking may not all come from catalogues. In many instances, the tool identifies forward **auctions** that are currently available for placing bids. The user may find that the forward **auction** item has the potential to be the best value to the government. In that case, by linking to the forward **auction** site, the user can determine if s/he wants to bid. In this instance, the...

...to procure the auctioned item. If successful, there would be an obligation to buy.

Reverse **Auctions**

After performing the spidering and comparison functions, a buyer can choose to set up a reverse **auction** to procure the item. The software tool has a button hyperlink to the reverse **auction** set up. The buyer fills in information that informs potential bidders on the quantity, starting price, start and initial ending time of the **auction**, item description, and other key parameters. For commercial type items under FAR Part 12, no...

...participation. For military items, a synopsis in the Commerce Business

Daily informs bidders where the **auction** site is and when it will commence.

Some **auctions** are for small businesses only or allow partial **quantities**. A **bid** decrement sets the rules for all bids subsequent to the first. Follow-on bids must...

...too small for a \$10,000 item, where a \$100 decrement would keep that reverse **auction** moving. A bidder can set up a "maximum" automatic bid price using the proxy method...

...someone intervenes and changes the bid. Users may set a definite time for the reverse **auction** or they may let the closing time float based on continuing interest in **bidding** by using an automatic time extension.

This feature allows buyers to set a specific...

...occurring at specified intervals. When a five-minute interval is chosen for a 30-minute **auction**, any bid received after **minute** 25 will **automatically extend closing** by five **minutes**. This can continue to happen until no more bids are received. It is imperative that...

...what the interval is. Procedures pertaining to late bids still apply in government procurement.

The

Auction Scenario

The Army's single face to industry host site only allows companies that are registered in the Central Contractor Registration System to compete in reverse **auctions**. When the **auction** is about ...

that price is. They do not know the real names of the bidders. At the **auction's** conclusion, the contracting officer calls the winner and arranges for finalizing the contract. That...

...rules.

Services

There are some fixed price performance-based services that are conducive to reverse **auctions**. An example of a service of this type is to organize a conference or providing...

...performance is easily understood so that what constitutes completion is clear.

Military Unique Items

The **auction** tool is also easy to use for military unique items. Using Part 15 of the...

...all technical data, specifications, terms and conditions, and other special provisions in advance of the **auction** date so that they can be knowledgeable about the product. Then they can provide their bids when the **auction** begins. CECOM's first military unique **auction** was

for Patriot missile connectors. Historically, using invitation for bids, the unit price for similar quantities was \$1,080 each. At the end of 45 minutes, the reverse **auction** yielded a unit price of \$780, a \$400 savings for each connector.

Some Other **Auction** Capabilities

The Army tool is also available for other uses. Forward **auctions** can be used to sell off surplus supplies and recycled materials. Authorized Defense agencies responsible...

...of government surplus items can use this tool to get the highest price possible. Dutch **auctions** can be used in the procurement of produce and other foodstuff with perishable shelf lives...

...Army activity wanting to multiply its buying power can enlist other government activities in its **auction**. There is a great potential to leverage the marketplace for the best price for common items. For instance, if the first Wednesday in a month were "copy paper **auction** day," all activities requiring copy paper could pool their requirements and leverage the suppliers. The **auction** tool allows for multiple delivery sites, so that bidders would know where and how much to send to each location. This is similar to a corporation running a reverse **auction** to leverage the marketplace for its individual divisions.

Real Best Value

An exciting enhancement will be added shortly that will allow for real best value. The reverse **auction** weightings will be set as they are in the existing tool, but they will stay with the item throughout the **auction**. Bidders will not only bid on price, but on other value terms as well. For...

...does the rest.

Results

As additional Army activities continue to find ways to use the **auction** tool, it also attracts interest from other military services. Officials at CECOM negotiated a license...

Descriptors:

...**Auctions**

--

20010322

11/K/14 (Item 2 from file: 148)
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...to absorb reserves on a temporary basis, and (3) a standby financing

facility involving the **auction** of options on repurchase agreements, reverse repurchase agreements, and matched sale-purchase transactions that could...

...surrounding the year-end. The permanent change, which also might prove useful during the year-**end period**, involved the **extension** of the maximum maturity on regular repurchase and matched sale-purchase transactions from sixty days...at rates that, unless otherwise expressly authorized by the Committee, shall be determined by competitive **bidding**, after applying reasonable limitations on the volume of agreements with individual dealers; provided that in...

...at rates that, unless otherwise expressly authorized by the Committee, shall be determined by competitive **bidding**, after applying reasonable limitations on the volume of agreements with individual dealers.

3. In order...mixed. Most Asian economies grew robustly in the first half of the year, but economic **activity** in a **number** of Latin American economies, with the notable exceptions of Brazil and Mexico, remained weak.

Consumer...

19991201

11/K/15 (Item 3 from file: 148)
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...cable, broadcast, satellite, telephony and personal wireless activities. His discussion will include frequency allocations and **auctions** for various licenses, details of the new Telecommunications Act and HDTV status.

In Tuck's...millimeter-wave antennas continues to increase and fuel interest from the component to the system **level**. Ongoing **activity** is disseminated, updated and discussed to stimulate new developments at several levels. Active optical components...SESSION

Application-specific RF Components for High Volume Markets R. Setty
Half-watt "Power Mixers" **Extend** the **Dynamic** Range of
Front-**ends** with LNAs D. Neuf
Surface Mount Coaxial Connector "SMCC" B. Rosenberger
Trimmer Capacitors, Tho Other...

19960500

Abstract: ...that pertains to the target firm's stand-alone value or its unique synergy potential. **Bidding** firm shareholders experience insignificant returns, and these returns are not affected by any of the...

Abstract:

Text:

Research reveals significantly higher valuation effects accompanying cash merger offers for both target and **bidding** firms than the valuation effects accompanying stock offers (Asquith, Bruner, and Mullins (1983), Wansley, Lane...

...even when there is no subsequent bid, indicating a permanent revaluation of target share value. **Bidding** firm shares are not permanently revalued in reaction to either merger or termination announcements, whatever...

...persist even after we control for variables shown in previous studies to influence target and **bidding** firms' wealth effects around merger announcements. We conclude that these findings are consistent with synergy ...

...several possible reasons. Cash offers produce higher returns than stock offers for both target and **bidding** firm shareholders. This cash premium is attributable to a signal that the medium of exchange...

...to the market. The party possessing the signaled information may be the target and/or **bidding** firm management, and the information may be based on (1) synergy, (2) target firm stand-alone value, or (3) **bidding** firm stand-alone value.(1)

We present our hypotheses and discuss the predicted share price reactions both around the initial merger announcement and for a **period extending** from the initial announcement through **termination**. Analysis of terminated merger proposals will let us better discern among hypotheses.

A. Synergy Hypothesis

Synergy explanations assume that private information regarding the synergistic value of either the target or **bidding** firm is revealed to the market through the offer medium. A merger is motivated by...

...resources results in economic gains. Berkovitch and Narayanan (1990) develop a model positing that the **bidding** firm has private information concerning potential synergistic value. According to this

model, the offer medium signals private information to the market, where high-synergy **bidding** firms use cash and low-synergy **bidding** firms use stock. This will cause **bidding** firm shares to react more favorably to cash offers than to stock offers at the...

...assume there is no reason for this synergistic value to persist after merger offer termination, **bidding** and target firm shares will fully revert to pre-announcement levels.

Similarly, Fishman (1989) asserts that both target and **bidding** firms have some private information on synergies, which is the primary determinant of the offer medium. A **bidding** firm may use a stock offer to elicit a signal of the private information possessed...

...failure of a stock offer reveals information about a target firm's private information. A **bidding** firm that is more certain of its information on target value will make a cash...

...Fishman model predicts that cash premium returns are split between the target firm and the **bidding** firm. In a highly competitive market, the target firm will capture most or all of the cash premium. If the **bidding** firm offers a unique attribute that enables potential synergy, the **bidding** firm will capture most of or all of the cash premium. At acquisition termination, the...

...the cash premium will continue for the target firm shares, while it would dissipate for **bidding** firm shares.

B. Tax Hypothesis

The tax hypothesis, a special case of a generalized synergy...

...are able to delay the payment of capital gains taxes until subsequent sale of the **bidding** firm's shares. Therefore, target shareholders demand a cash premium that at least offsets any immediate tax obligation.

For the **bidding** firm, the primary tax benefit of a cash exchange is the ability to step up...

...acquired assets are substantially higher than the benefits from NOL carryforwards and recapture tax deferment, **bidding** firms are willing to pay the premium necessary to ...tax obligations results in a tax synergy. This tax synergy is split by target and **bidding** firm shareholders depending on the presence of competition and informational asymmetry. If we assume a...

...no new information has been revealed to the market during the offer period. For a **bidding** firm, any premium occurring in a cash offer is offset by the value of acquired tax benefits. The tax hypothesis gives us no reason to expect the price of the **bidding** firm's shares to depend on the offer type, around either initial announcement or subsequent...

...is that the proposed medium of exchange in a merger signals private information of the **bidding** firm's value. If the **bidding** firm's managers have private information on the intrinsic value of their own firm, they...

...in the most profitable way for their own shareholders. Consistent with

Myers and Majluf (1984), **bidding** managers act in the interest of passive shareholders by offering stock if they believe their...

...DeAngelo, DeAngelo, and Rice (1984) and Hansen (1987)).(3)

Since the offer medium signals the **bidding** firm's value, target firm shares experience no differential revaluation based on offer medium. For the **bidding** firm, however, a cash offer signals "good" news to the market, and a stock offer signals "bad" news. Therefore, around the initial announcement date returns to the **bidding** firm's shareholders will be higher in the case of cash merger offers. Because the...

...to the market pertains to intrinsic firm value, and not potential synergies, we expect the **bidding** firm's share price will continue to reflect this information even after termination of the...

...a way of pre-empting competing bids. Under this investment explanation, the target and/or **bidding** firms are assumed to have private information on the target firm's stand-alone value. If the **bidding** firm has information that the target firm is undervalued in the market, it will offer...

...on their private information of target firm stand-alone value.

As under the signaling hypothesis, **bidding** and target firms will split the cash premium depending on competition. Target shareholders realize a...

...termination because the offer type signals stand-alone value. In a perfectly competitive market, the **bidding** firm's share price is not affected by offer type either at the initial announcement...

...are summarized in Table 1.

Table 1. The Cash Premium(a) Predicted for Target and **Bidding** Firm
Shareholders Implied by the Synergy, Tax, Financing, and Investment Hypotheses

Cash Premium

Announcement

Hypothesis...

...Street Journal (WSJ). We define the announcement date as the first public announcement by the **bidding** firm of a clear intent of acquisition. Data regarding the proposed medium of exchange, the...

...are obtained from the WSJ and Mergerstat Review. Daily stock returns and outstanding shares for **bidding** and target firms are obtained from the University of Chicago's Center for Research in...willingness to tender shares.(4)

From the initial sample of 207 target firms and 207 **bidding** firms, 24 observations are dropped because the announcement of the merger

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...15 target firm observations are eliminated because of insufficient returns data. Of the remaining 183 **bidding** firms, 47 observations are lost because the firms are not listed, and 13 observations are dropped because of insufficient returns data. The final sample consists of 84 target and 123 **bidding** firms.(5)

Table 2 presents descriptive statistics for target and **bidding** firms in the final sample. Of the 84 target firms, 44 offered cash and 22 ...

...disclosed or is some combination of cash, stock, debt, and preferred stock. Of the 123 **bidding** firms, 59 offered cash and 38 stock.

We compare our sample of terminated merger proposals to 174 successful mergers from the same time period, 1980 to 1988, in which the **bidding** firm is listed on the NYSE or the AMEX and the offer medium is disclosed...

...after termination of the first offer. Forty offers are terminated by target management, 17 by **bidding** management, 8 by mutual agreement between target and **bidding** management, and 19 by an outside party.(6) A majority of the **bidding** firms (77 of 123) do not make a subsequent bid. Fifty-four offers are terminated by target management, 27 by **bidding** management, and 14 offers by mutual agreement, and the remaining 28 terminations are forced by...

...preceding the initial announcement, is \$492 million for target firms and \$1,657 million for **bidding** firms.

There is evidence of an acquisition program in place prior to the initial offer for 15 target firms and for 46 **bidding** firms. We find that for 15 target firms and 20 **bidding** firms there are competing bids for the target firm. Previous stock ownership is present in 27 target firms with average ownership interest of 16.28%, whereas 23 **bidding** firms have a foothold position averaging 13.78%.

Table 2. Descriptive Statistics for Sample of Target and **Bidding** Firms

Involved in Terminated Merger Offers(a)

Variable	Target Firm	Bidding
Firm		
Medium of Exchange		
Cash	44	59
Stock	22	38
Other	18	26
Subsequent Bid(b)	24	46
No Subsequent Bid	60	77
Party Terminating		

Target Management(c)		40	54
Bidding			
Management(d)	17	27	
Mutual Decision(e)		8	14
Outside Party(f)		19	28

Market...

...terms, a lock-up clause is present, or the target

board rejects the offer.

d

Bidding

firm management announces that the merger is terminated because of

market conditions, the merger is not considered in the best interest of the **bidding** firm, the **bidding** firm cannot obtain the desired financing, or there are problems with merger terms.

e The merger is terminated by mutual agreement between the target and **bidding** firms' boards of directors.

f Lenders deny approval, shareholder resistance causes termination, or a regulatory...

...the month
prior to the initial merger announcement.

h Acquisition program refers to whether the **bidding** firm has a previously announced acquisition program.

i Foothold position is the percent holding of target firm equity by the **bidding** firm prior to the initial merger announcement. The mean is based on those firms with a positive foothold position.

For a majority of the target and **bidding** firms, the number of trading days between the announcement and the termination of the merger bid is less than 60 days (60 of 84 target firms, 92 of 123 **bidding** firms). The longest interval is 168 days for a target firm and 259 days for a **bidding** firm.

III. Excess Returns

Valuation effects on shareholders in target and **bidding** firms are estimated over four analysis periods: announcement, interim,

termination, and overall period. The announcement...to measure permanent shifts in a firm's market value.

Stockholder returns for target and **bidding** firms around the announcement and subsequent termination of merger proposals are examined using the methodology...

...cash offers (CAR = 9.72%) than in terminated stock offers (CAR = -8.65%).(10) Even **extending** the overall **period** 250 days past the **termination** date, we show returns for cash offers (CAR = 14.43%) are significantly higher ($z = 2...$

...is significant ($z = 3.07$). This difference remains significant ($z = 2.10$) for an overall **period** that **extends** to 90 **days** after **termination** with significant, positive overall returns of 5.25% in cash offers and insignificant, negative returns...

...significant ($z = 0.79$), this may be TABULAR DATA OMITTED primarily because of the small **number** of stock **offers** in our sample that receive a subsequent bid ($N = 2$). The difference remains large, but... after termination of the merger proposal is consistent with the investment and synergy hypotheses.

B. **Bidding** Firm Returns

The valuation effects on **bidding** firm shareholders from the initial merger announcement through subsequent termination are presented in Table 4...

...the interim period, termination period, and overall periods. Additionally, the pattern of insignificant returns for **bidding** firms' shareholders is not dependent on medium of exchange or presence of a subsequent bid.(13,14) Our results indicate that the medium of exchange offered does not signal **bidding** firm value, so we cannot find support for the hypotheses of Myers and Majluf (1984...

... $T_3 = 0$ if the target firm decides; $T_1 = 0$, $T_2 = 1$, $T_3 = 0$ if the **bidding** firm decides; $T_1 = 0$, $T_2 = 0$, $T_3 = 1$ if the decision is made mutually; $T_1...$

... $T_3 = 0$ if an outside party decides); PROG is a dummy variable indicating whether the **bidding** firm has a previously announced acquisition program (PROG = 0 if there is no announced program...

...announced program); FOOT is the percentage of the target firm's stock held by the **bidding** firm (foothold position) before the merger announcement; SIZE is the relative size of the proposed...

...value of the target firm's common stock divided by the market value of the **bidding** firm's common stock; and COMPETE is a dummy variable indicating whether there are competing...

...1989) find that the valuation effects in terminated mergers differ depending on whether target or **bidding** management terminates discussion.

Presence of an acquisition program is included to control for

previously incorporated market reactions. With a previously announced acquisition program, market reaction for **bidding** shares is shifted to the announcement of the acquisition program from a subsequently announced bid...

...Foothold position, measured as the percentage of the target firm's stock held by the **bidding** firm before the initial merger announcement, controls for informational effects from the impending merger announcement
...

...for problems in measuring abnormal returns due to relative size differences between target firms and **bidding** firms (Asquith, Bruner, and Mullins (1983)). The presence of competing bids is included because competition...to offer a potential suitor.

Results of various versions of the general regression model for **bidding** firms reveal no significant coefficients in any regression and therefore are not reported. These findings provide evidence that the

bidding firms experience no significant revaluation as a result of information related to a merger bid...

...occur simultaneously with the investment and/or synergy explanations. The absence of valuation effects for **bidding** firm shares provides evidence contrary to the response predicted by the financing hypothesis, suggesting that offer medium does not signal private information about **bidding** firm value.

1 Alternatively, the offer may act (at initial announcement) to signal differential probabilities...

...and Kim (1988) demonstrate that competition for acquisition of a target will decrease returns to **bidding** firms but increase returns to target firms.

3 Support for this financing explanation has been...

...in our sample of target firms, 22 are terminated by target management and 10 by **bidding** management for economic reasons: two because of regulatory action; two because of shareholder resistance; and one because an offer for the **bidding** firm was made by an outside party. In seven cases, the reason could not be determined. Of the 22 stock offers, five are terminated by target management and three by **bidding** management for economic reasons; two because of regulatory action; one because of shareholder resistance; and one because an offer for the **bidding** firm was made by an outside party. In ten cases, the reason could not be determined.

7 Of the 59 cash offers in our sample of **bidding** firms, 18 are terminated by target management and 15 by **bidding** management for economic reasons; 11 because the target firm is acquired by another firm; five...

...of regulatory action; one because of shareholder resistance; and one because an offer for the **bidding** firm was made by an outside party.

In eight cases, the reason could not be determined. Of the 38 stock offers, nine are terminated by target management and seven by **bidding** management for economic reasons; four because of regulatory action: three because of shareholder resistance; two...

...alternative measures of the termination period to evaluate post-termination valuation effects. The alternative measures **extend** the post-**termination period** to +30, +60, +90, and +250 days after the termination date.

9 We also examined...firms based on medium of exchange do not result from a transfer of wealth from **bidding** firms to target firms. Even though **bidding** firms are on average approximately four times larger than target firms, this magnitude does not...

...51-83.

Asquith, P., R.F. Bruner, and D.W. Mullins, 1983, "The Gains to **Bidding** Firms from Mergers," Journal of Financial Economics (April), 121-139.

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Fishman, M.J., 1988, "A Theory of Preemptive Takeover **Bidding**," RAND Journal of Economics (Spring), 88-101.

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...Financial Economics (April), 85-120.

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Wansley, J.W., W.R. Lane...

19940922

11/K/17 (Item 5 from file: 148)
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...Timing

U.K. and U.S. rules with respect to timing in tender and exchange **offers** differ in a **number** of respects. In the Hanson offer for Beazer, each jurisdiction's practices were modified in...the issuer of securities, and any other person participating in the distribution, is barred from **bidding** for, buying, or inducing others to buy those securities or securities of the same class...

...two business days prior to the mailing of the Offer Document. Thereafter, and until the **expiration** of the 14-day **extension** that was required after the offer became unconditional, the broker-dealer affiliates were permitted to the **expiration** of the 14-day **extension**, they were entitled to conduct market-making activity for the remainder of the distribution period...

19920700

11/K/18 (Item 6 from file: 148)
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RJR Holdings agrees to bidding procedures; extends RJR Nabisco tender offer. (Kohlberg Kravis Roberts and Co.'s RJR Holdings Corp.)

Text:

RJR HOLDINGS AGREES TO **BIDDING** PROCEDURES;

...Acquisition offer until 12 midnight on Monday, Dec. 5, 1988. The proration period will also **expire** at that **time**. The **extension** does not amend or waive any term or condition of the RJR Acquisition offer other...

...time of expiration of the offer, including without limitation the right to further extend the **offer**.

No significant **number** of shares of common stock or Series B cumulative preferred stock have yet been tendered...

19881111

11/K/19 (Item 1 from file: 348)
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Country	Number	Kind	Date
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Abstract ...a client information database. Said system is arranged to enable at least one of an **auction** mode and a negotiation mode, the **auction** mode for directly matching exchange orders according to the principle of balance of supply and...

Type	Pub. Date	Kind	Text
Available Text	Language	Update	Word Count
Total Word Count (Document A)			
Total Word Count (Document B)			
Total Word Count (All Documents)			

Specification: ...document does disclose that exchange transactions can be performed on a matching basis of an **auction** mode via, e.g. the Internet while saving fees payable to intermediaries. In the financial... ...or related markets, however, more technical functionality is required than disclosed therein. That is, the **auction** mode may not always be sufficient as functionality.

Accordingly, it is an object of the... ...of said system, and the system is arranged to enable at least one of an **auction** mode and a negotiation mode, the **auction** mode for directly matching exchange orders according to the principle of balance of supply and... ...to complete said exchange transactions.

By providing said customers with the option to select the **auction** mode performed by the server or the negotiation mode in which they can directly negotiate...of said system, and said server is arranged to enable at least one of an **auction** mode and a negotiation mode, the **auction** mode for directly matching exchange orders according to the principle of balance of supply and... ...storing data regarding users of said system, and (d) providing at least one of an **auction** mode and a negotiation mode, the **auction** mode for directly matching exchange orders according to the principle of balance of supply and...or among themselves.

Hereinafter, as an embodiment of the present invention, an example of an **auction** mode, in which an exchange transaction is completed through the processes from exhibition to **bidding** and then successful bid making, will be described.

Although the description provides much specificity, the... ...who desire to use the service. These users can, in the present system, execute exhibition, **bidding**, successful bid making, transaction confirmation, preparation and signing of a letter of intent, communication with... ...a product that it desires to procure. On the other hand, the bidder participates in **bidding** after confirming that the desired offer product of the exhibitor is the desired procurement product... ...as described below:

(a) Section for direct exchanges of asset management products:

In this section, **bidding** is executed for exhibition of asset management products such as financial asset management products including... ...successful bidders.

(b) Section for cash flow exchanges of asset management products:

In this section, **bidding** is executed for exhibition of the above-described asset management products, and then the cash... ...the direct exchange and the cash flow exchange of asset management products:

In this section, **bidding** is executed for exhibition of the above-described asset management products, and then the products... ...flow exchange.

(d) Section for cash flow exchanges of capital raising products:

In this section, **bidding** is executed for exhibition of capital raising products such as borrowed liabilities, equities, bonds, commercial... ...successful bidders.

(e) Section for cash flow exchanges of capital transaction products:

In this section, **bidding** is executed for exhibition of capital transaction products such as foreign exchange products, financial derivative... for cash flow exchanges between asset management products and capital transaction products:

In this section, **bidding** is executed for exhibition of the above-described asset management products and for exhibition of... of their unrealized profits or losses.

(g) Section for asset/liability management:

In this section, **bidding** is executed for exhibition of various combinations of the direct exchange of asset management products... supply and demand of various exchange transactions, and wait for opportunities for their participation in **bidding**. Additionally, the details regarding completed exchange transactions are disclosed for the purpose of showing the... products, a desired exchange period, a desired exhibition period as well as acceptability of an **automatic extension** or an early **termination** thereof, various requests for bidders, and/or the like. As used in the present invention... cases of unit price products, a desired exchange period, desired timing for participating in the **bidding**, various requests for the exhibitor, and/or the like. As used in the present invention... is a fair appraisal value based on an optimal appraisal approach, and then accepts the **bidding**. Concealing the individual name and/or corporate name of the bidder, the operator feeds back... product, there is a method of unbundling each tie-in into its constituents to execute **bidding**, and a method of bundling cash flows arising from a plurality of products and then utilizing the net cash flow to execute **bidding**.

In the case in which prospective exchange transactors (A), (B) and (C) desire to offer... or more prospective exchange transactors, the operator may arrange a simultaneous exchange transaction.

In the **auction** mode, if negotiation is necessary between an exhibitor and a bidder regarding a method of... exchange product, additional conditions for completing an exchange, an exhibition period, timing for participating in **bidding**, and/or the like, the negotiation is substituted for by the negotiation between the exhibitor... for example, that the desired exchange values of both the parties, based on which the **auction** started, can be regarded as fair, and that the completed exchange products do not include... Now, the methods of matching demands to exchange according to the present system include an **auction** mode and a negotiation mode.

The **auction** mode is utilized in cases in which an asset manager, a capital raiser or a... the name of the exhibiting party and its act of exhibition are originally disclosed, the **bidding** party is not originally specified and orders are matched on the basis of provisional terms basically according to the principle of balance of supply and demand. The **auction** mode is effective on occasions on which an exchange item is a well-recognized product. Additionally, as used in the present invention, the former **auction** mode shall be referred to as the 'matching method with both sides unspecified,' while the latter **auction** mode shall be referred to as the 'matching method with a single side specified.'

On... or she desires to offer (hereinafter referred to as the exhibition product), and a desired **offer volume** in the case in which the exhibition product is a unit price product, as well... raising product or capital transaction product that he or she desires to procure through the **auction** (hereinafter referred to as the **bidding** product), and a desired procurement volume in the case in which the **bidding** product is a unit price product. The exhibitor also inputs or specifies therein a desired... the exchanging counterparties, and/or a desired exhibition period as well as acceptability of an **automatic extension** or an early **termination** of the exhibition, and further specifies therein, as a provisional term, the disparity between the... has confirmed that the exhibition product is his or her desired procurement product while the **bidding** product is his or her desired offer product, and then has decided to participate in the **bidding** (hereinafter referred to as a bidder), on his or her own order placement page, specifies... exhibitor, whether it is a limit order or an order without limit, his or her **bidding** volume in the case in which the **bidding** product is a unit price product, and his or her desired amount of exchange difference... the present server 196 receives the exchange order from the bidder, stores it in a **bidding** list on the exchange transaction database 199,

and then sends the bidder an order confirmation... ...stage where the exchange transactions have been completed, but the total sum that the successful **bidding** side as a whole pays to or receives from the exhibitor. Thus, in the case... ...based on the data, updates the remaining volumes on the exhibition list and on the **bidding** list. Then, at the stage where successful bid volumes of the **bidding** product have been accumulated to reach the desired procurement volume of the exhibitor, the present... ...is prorated according to the respective successful bid volumes of the successful bidders regarding the **bidding** product, and then the prorated volumes are respectively reported to the successful bidders.

Thereafter, if... ...value the amount of exchange difference between an exhibiting party and one or more successful **bidding** parties. However, if both an exhibition product and a **bidding** product are unit price products, a style in which, for example, an exchange ratio of... ...product or capital transaction product that he or she desires to offer, and a desired **offer volume** in the case in which the desired offer product is a unit price product, as... ...limit, and a term of validity of the order as well as acceptability of an **automatic extension** or an early **termination** of the term, and further specifies therein in case of a limit order, the disparity... ...procurement volumes and desired offer volumes of the latter orders respectively correspond to the desired **offer volume** and desired procurement volume of the former order. Also, in the case in which the... ...and a desired offer value of his or her desired offer product, and a desired **offer volume** in the case in which the product is a unit price product, as well as... ...and the desired offer value of his or her desired offer product, and the desired **offer volume** in the case in which the product is a unit price product, as well as... ...blank fields of said electronic master agreement.

Thereafter, in an exchange transaction completed by the **auction** mode, in the blank fields of a letter of intent between the operator and an... ...acceptable creditworthiness of exchanging counterparties, a desired exhibition period as well as acceptability of an **automatic**

extension or an early **termination** of the exhibition, desired exchange values (i.e. provisional terms), desired exchange volumes in case... ...a recipient depending on the actual cash flow. In an exchange transaction completed by the

auction mode, for the purpose of maintaining the anonymity of exchanging parties, the system operator becomes...account securities transfers in the present system. However, in an exchange transaction completed by the **auction** mode, the system operator becomes the assignee of securities if an exchanging party is an... ...and exchange periods, as well as details and provisional terms of exchange transactions currently under **bidding**, **bidding** statuses of prospective exchange transactors, and/or outlines of exchange transactions scheduled to be auctioned...or related markets. That is, by providing said customers with the option to select the **auction** mode performed by the server or the negotiation mode in which they can directly negotiate...

Claims: ...of said system, and the system is arranged to enable at least one of an **auction** mode and a negotiation mode, the **auction** mode for directly matching exchange orders according to the principle of balance of supply and... ...of said system, and said server is arranged to enable at least one of an **auction** mode and a negotiation mode, the **auction** mode for directly matching exchange orders according to the principle of balance of supply and... ...storing data regarding users of said system, and

(d) providing at least one of an **auction** mode and a negotiation mode, the **auction** mode for directly matching exchange orders according to the principle of balance of supply and...

Country	Number	Kind	Date
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Abstract ...a client information database. Said system is arranged to enable at least one of an **auction** mode and a negotiation mode, the **auction** mode for directly matching financial transaction orders according to the principle of balance of supply...

Type	Pub. Date	Kind	Text
Available Text	Language	Update	Word Count
Total Word Count (Document A)			
Total Word Count (Document B)			
Total Word Count (All Documents)			

Specification: ...does disclose that financial transactions can be performed on the basis of matching of an **auction** mode via, e.g. the Internet while avoiding transactions through conventional intermediaries that may be... ...the financial markets, however, more technical functionality is required than disclosed therein. That is, the **auction** mode may not always be sufficient as functionality.

Accordingly, it is an object of the... ...of said system, and the system is arranged to enable at least one of an **auction** mode and a negotiation mode, the **auction** mode for directly matching according to the principle of balance of supply and demand, financial... ...complete said financial transactions.

By providing said end customers with the option to select the **auction** mode performed by the server or the negotiation mode in which they can directly negotiate...of said system, and said server is arranged to enable at least one of an **auction** mode and a negotiation mode, the **auction** mode for directly matching according to the principle of balance of supply and demand, financial... ...storing data regarding users of said system; and (d) providing at least one of an **auction** mode and a negotiation mode, the **auction** mode for directly matching according to the principle of balance of supply and demand, financial... ...and a client information database, and is arranged to enable at least one of an **auction** mode and a negotiation mode.

The present invention will become more apparent from the following...the operator 1 outlines of the desired secondary offerings including names of issues, amounts to **offer**, **number** of shares to **offer**, time to maturity, existence of collateral or guarantors, and/or the like. Then, the operator...and the password.

Now, the methods of matching according to the present system include an **auction** mode and a negotiation mode.

The **auction** mode is utilized in cases in which, in general capital raising, in secondary offerings in... ...secondary offering side is an exhibitor, while the capital management side is a bidder.

The **auction** mode is also utilized in cases in which, in general capital management in the secondary... ...management side is vis-a-vis the capital raising side.

In the case of the **auction** mode that is utilized in general capital raising, an end capital raiser or capital raising... ...product that he or she desires to service, a desired exhibition period, acceptability of an **automatic extension** or an early **termination** of the exhibition, and/or various requests to end capital managers and capital management agencies... ...has become interested in the capital raising product exhibited and decided to participate in the **bidding** (hereinafter referred to as a bidder), on his or her own order placement page, specifies... ...successful.

The present server 28 receives the order from the bidder, stores it in a **bidding** list on the financial instrument database 31, and then sends the bidder an order confirmation... ..stored contents thereto, on which the bidder confirms the contents of his or her own **bidding**.

The present server 28 matches a capital raising demand and capital management demands by executing... ..below:

First, concerning orders without limit from bidders, the server 28 makes successful the entire **bidding** volume within the desired capital raising volume of the exhibitor. Also, concerning limit orders from... ..based on the data, updates the remaining volume on the exhibition list and on the **bidding** list. Then, at the stage where subsequent successful bid volumes have been accumulated to reach... ..numerical values favor the exhibitor, may also be actually employed.

In the case of the **auction** mode that is utilized in secondary offerings in the secondary markets, a selling holder or... ..for which the exhibitor desires the secondary offering, a desired exhibition period, acceptability of an **automatic extension** or an early **termination** of the exhibition, and/or various requests to end capital managers and capital management agencies... ..has become interested in the secondary offering product exhibited and decided to participate in the **bidding** (hereinafter referred to as a bidder), on his or her own order placement page, specifies... ..successful.

The present server 28 receives the order from the bidder, stores it in a **bidding** list on the financial instrument database 31, and then sends the bidder an order confirmation... ..stored contents thereto, on which the bidder confirms the contents of his or her own **bidding**.

The present server 28 matches a secondary offering demand and purchase demands by executing processing... ..below:

First, concerning orders without limit from bidders, the server 28 makes successful the entire **bidding** volume within the desired secondary offering volume of the exhibitor. Also, concerning limit orders from... ..based on the data, updates the remaining volume on the exhibition list and on the **bidding** list. Then, at the stage where subsequent successful bid volumes have been accumulated to reach...numerical values favor the exhibitor, may also be actually employed.

In the case of the **auction** mode that is utilized in general capital management in the secondary markets, or in some... ..or an order without limit, a term of validity of the order, acceptability of an **automatic extension** or an early **termination** of the term, various requests to his or her counterparties, a desired transaction volume, and... ..raising product and a capital transaction product is stored in the exhibition list in the **auction** mode that is utilized in capital raising, the system operator may solicit bidders with respect... ..management product and a capital transaction product is stored in the exhibition list in the **auction** mode that is utilized in a secondary offering, the operator may solicit bidders with respect... ..said electronic master agreement.

Thereafter, in capital raising and a secondary offering completed by the **auction** mode, in the blank fields of an agreement between the operator and an exhibitor and... ..the agreements come into force. In capital management and a capital transaction completed by the **auction** mode, in the blank fields of an agreement between the operator and a person who... ..as a name or issue, terms and conditions, a desired exhibition period, acceptability of an **automatic extension** or an early **termination** of the exhibition, desired capital raising numerical values (i.e. provisional terms) or desired secondary...33 to reflect the transfer of money.

Additionally, in a financial transaction completed by the **auction** mode, for the purpose of maintaining the anonymity of transacting parties, the system operator becomes... ..account securities transfers in the present system. However, in a financial transaction completed by the **auction** mode, the system operator becomes the assignee if a transacting party is an assignor, and... ..or secondary offering arrangements, as well as details and provisional terms of instruments currently under **bidding**, **bidding** statuses of prospective transactors, and outlines of instruments

scheduled to be exhibited afterwards, into lists...and a client information database, and is arranged to enable at least one of an **auction** mode and a negotiation mode.

Claims: ...of said system, and the system is arranged to enable at least one of an **auction** mode and a negotiation mode, the **auction** mode for directly matching according to the principle of balance of supply and demand, financial... ...of said system, and said server is arranged to enable at least one of an **auction** mode and a negotiation mode, the **auction** mode for directly matching according to the principle of balance of supply and demand, financial... ...storing data regarding users of said system; and

(d) providing at least one of an **auction** mode and a negotiation mode, the **auction** mode for directly matching according to the principle of balance of supply and demand, financial...

11/K/21 (Item 3 from file: 348)

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Country	Number	Kind	Date		
Type		Pub. Date		Kind	Text
Available Text		Language		Update	Word Count
Total Word Count (Document A)					
Total Word Count (Document B)					
Total Word Count (All Documents)					

Specification: ...As an embodiment of the present invention, the following will describe an example of an **auction** mode, in which a let demand and a hire demand are matched through the processes from exhibition to **bidding** and then successful bid making, whereby a lease transaction comes into effect However, the present... ...use the present service. Each of these users can, in the present system, execute exhibition; **bidding**; successful bid making; transaction confirmation; preparation and signing of a letter of intent; communication with... ...described below: (a) Section for cash flow leases of asset management products:

In this section, **bidding** is executed for exhibition of asset management products such as financial asset management products including... ...for cash flow leases of asset management products utilizing their discount values:

In this section, **bidding** is executed for exhibition of the above-described asset management products, and then the cash... ...for cash flow leases of asset management products targeting their premium values:

In this section, **bidding** is executed for exhibition of the above-described asset management products, and then the cash... ...and successful bidders.

(d) Section for direct leases of asset management products:

In this section, **bidding** is executed for exhibition of the above-described asset management products, and then the actuals... ...the successful bidders.

(e) Section for cash flow leases of capital raising products:

In this section, **bidding** is executed for exhibition of capital raising products such as borrowed liabilities, equities, bonds, commercial... for cash flow leases of capital transaction products utilizing their unrealized profits:

In this section, **bidding** is executed for exhibition of capital transaction products such as foreign exchange products, financial derivative... for cash flow leases of capital transaction products targeting their unrealized losses:

In this section, **bidding** is executed for exhibition of the above-described capital transaction products, and then the cash... received between exhibitors and successful bidders.

(h) Section for asset/liability management:

In this section, **bidding** is executed for exhibition of various combinations of asset management products, capital raising products and... present system, exhibits a product that it desires to lease, while the bidder participates in **bidding** after recognizing the information on the product and is called a successful bidder at the... of supply and demand of lease transactions, and wait for opportunities for their participation in **bidding**. Additionally, the details regarding concluded lease transactions are disclosed for the purpose of showing the... product; a desired lease period; a desired exhibition period as well as acceptability of an **automatic extension** or an early **termination** thereof; various requests for bidders; and/or the like.

As used in the present invention... decided to make a bid, informs the operator of desired timing for participating in the **bidding**, various requests for the exhibitor, and/or the like. As used in the present invention... is a fair appraisal value based on an optimal appraisal approach, and then accepts the **bidding**. Concealing the individual name and/or corporate name of the bidder, the operator feeds back... product, there is a method of unbundling each tie-in into its constituents to execute **bidding**, and a method of bundling cash flows arising from a plurality of products and then utilizing the net cash flow to execute **bidding**.

Also, in the **auction** mode, if negotiation is necessary between an exhibitor and a bidder regarding a method of... product, additional conditions for concluding a lease transaction, an exhibition period, timing for participating in **bidding**, and/or the like, the negotiation is substituted for by the negotiation between the exhibitor... matching a let demand and a hire demand according to the present system include an **auction** mode and a negotiation mode.

The **auction** mode is utilized, for example, in cases in which an asset manager, a capital raiser... orders are matched basically according to the principle of balance of supply and demand. The **auction** mode is effective on occasions on which a lease item is a well-recognized product... or is a capital transaction product with complicated cash flow.

In the case of said **auction** mode, a prospective lessor or a prospective lessee that desires an exhibition (hereinafter referred to... product; a desired lease period; a desired exhibition period as well as acceptability of an **automatic extension** or an early **termination** of the exhibition; and/or various requests to bidders. Also, the exhibitor specifies a desired... has become interested in the exhibition product, and then has decided to participate in the **bidding** (hereinafter referred to as a 'bidder'), on his or her own order placement page, specifies... will be successful.

Server 120 receives the order from the bidder, stores it in a **bidding** list on lease transaction database 122, and then sends the bidder an order confirmation page... described below:

First, concerning orders without limit from bidders, server 120 makes successful the entire **bidding** volumes within the desired lease volume of the exhibitor. Also, concerning limit orders from bidders... the stage where subsequent successful bid volumes have been accumulated and then the total successful **bid volume** has reached the desired lease volume of the exhibitor, server 120 sets as fixed terms... successful bid notice may function as the final prospectus.

Additionally, although the above describes an **auction** mode that finally sets leasing charge rates as a uniform value, a style in which... blank fields of said electronic master agreement.

Thereafter, in a lease transaction concluded by the **auction** mode, in the blank fields of a letter of intent between the operator and an... ..shall be referred to as a 'recipient.' However, in a lease transaction concluded by the **auction** mode, the system operator becomes the recipient if a leasing party is a payer, and... ..account securities transfers in the present system. However, in a lease transaction concluded by the **auction** mode, the system operator becomes the assignee of a security if a leasing party is... ..price products, and lease periods; outlines and provisional terms of lease transaction products currently under **bidding**, and **bidding** statuses of prospective lease transactors; and/or outlines of lease transaction products scheduled to be...

11/K/22 (Item 4 from file: 348)

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Country	Number	Kind	Date		
Type		Pub. Date		Kind	Text
Available Text		Language		Update	Word Count
Total Word Count (Document A)					
Total Word Count (Document B)					
Total Word Count (All Documents)					

Specification: ...traded.

For Internet based messaging systems such as instant messaging systems, BBS's, chat rooms, **auction** rooms etc, a user is required to "log in" to the server hosting the same... ..is time consuming and cumbersome. Where the BBS is set up for trading, or for **auctioning**, the time delay between making an offer, or a bid, acceptance of that offer or... ..service that is the subject matter of the transaction. The commercial transaction may be an **auction**, the entity is a product or item that is being auctioned, and the message is concerned with a bid at the **auction** in relation to a specific product or item.

The prescribed action may comprise invoking a...7 are schematic diagrams showing generally how a user can register with the trade and **auction** service application;

Figure 8 is a schematic diagram showing generally how a user can receive notifications concerning his bids and submit further bids in the trade and **auction** service application;

Figure 9 is a sample discussion board for an **auction** format service

Figure 10 is a flow chart of the discussion process with wireless clients associated with the **auction** service format;

Figure 11 is a schematic diagram of the messaging system and the interaction of wireless clients with the host server in the **auction** service format;

Figure 12 is a sample discussion board for a personal service associated with... ..however, will be limited to describing the application of the invention to a trade and **auction** service with reference to...packet received from a client indicates that the message is concerned with the trade and **auction** service provided by the host server 15, an **auction** server application 111 on the host server is invoked.

The **auction** server application 111 essentially comprises a registration handling means (registration handler), a message dispatching means... ..a message receiving means (message receiver), a unique identification number assigning means (UIN assignor), an **auction** database means (**auction** database 112), and a trade and **auction** handling means (**auction** handler). These are embodied in the form of program routines that are continuously executed under the control of an operating system in the **auction** server application 111 and thus automate the registration and **bidding** process.

The registration process of a prospective user of the **auction** and trade service is undertaken requiring the prospective user to have a PC-based or... ..subscriber, in the manner previously described. The message dispatcher and the message receiver of the **auction** server application 111 communicate directly with the SMSC server system 25 via the host server... ..send and receive short messages or commands via SMS, once the host server invokes the **auction** server application.

In the present embodiment, the prospective user via the computer 113 accesses a registration form made available by the **auction** server application 111 to prospective users of the trade and **auction** service through the host server 15. The registration form includes fields in which the user... ..requisite fields in the registration form, the prospective user then submits the data to the **auction** server application 111 provided on the host server 15. This can be achieved in a... ..page for the registration form, where the user can submit the entered data to the **auction** server application 111. Upon receipt of the essential and optional data from the user's computer 113, the **auction** server application 111 invokes the registration handler.

The registration handler creates a new entry in... ..server 15 to temporarily register the user with the host server for the trade and **auction** service facility provided on the host server. This entry contains prescribed essential and optional data for registration purposes. In the embodiment, the essential data for the trade and **auction** service comprises the user's name, address, an NIN of a messaging-capable wireless device... ..authentication process used in the embodiment. The authentication process for new users registering with the **auction** server application 111 is performed by the registration handler. As shown, the registration process initially... ..user has submitted data entered on the registration form to the host server 15, the **auction** server application 111 takes the user's computer 113 to a further HTML web page... ..further HTML web page then explains that once the password has been verified by the **auction** server application 111, their account will be activated.

The user enters the password in to... ..15 to identify a user or someone just visiting the URL address corresponding to the **auction** server application 111. For that session, a cookie, which identifies the user, is associated with that user's account.

Upon receipt of the password, the host server 15 invokes the **auction** server application 111 to verify that the submitted password is the same as the temporary... ..of the UIN extracted from the concatenated number entered as the recipient's address, the **auction** server application 111 would be invoked and the message receiver engaged to handle the message... ..the "sender" field of the SMS message.

In an enhancement to the registration process, the **auction** server application 111 causes the host server 15 to dispatch a message to the user... ..by and recognized by the host server 15 as that for registration purposes with the **auction** server application 111. The numeric access code is used by the SMSC server system 25... ..subsequently decode the UIN, and upon establishing that the message relates to the trade and **auction** service provided by the host server, then invokes the **auction** server application 111 whereupon the message receiver is engaged to process the message.

The UIN... ..Once registered, a user is able to browse products and services available for trade and **auction** and to place bids for products and services as described in further detail below. Registered users are also able to place their products for trade or **auction** in the **auction** database 112 managed by the **auction** server application 111.

To add a product or service to the **auction** database 112, a user submits product data to the host server 15, in a similar manner to that described above for submitting registration data. That is, the user accesses the **auction** server application 111 using their computer 115 and accesses an "add new product" HTML web... The user then enters product data and submits the product data for entering into the **auction** database 112 under the control of the **auction** server application 111. In the embodiment, the following product data is required, some optional, from... A short description of the product that will appear in lists of products on the **auction** database 112.

User Id: The nickname of the registered user selling the product.

User password... product entry. If the password is incorrect, the product will not be added to the **auction** database 112.

Auction Type/Method: The user can specify whether the **auction** is to be conducted as a regular **auction** or as a Dutch **auction**, for example.

Item Description: A more detailed description of the item for sale.

Country: The seller's country.

Auction Start Date and Time: The date and time that the **auction** will commence. Bids for items are not accepted before an **auction** commences.

Auction Duration: The length of time the **auction** will last.

Category: A broad identification, selected from a list, of the type of product... to be bid out that can be uploaded directly from the computer 115 to the **auction** database 112, via the internet 19.

Payment Method: The payment method or methods that the... shipping, countries that the seller is or is not prepared to ship to, etc.

Minimum **Bid**: A **threshold** value that sets a minimum value for the first bid. Bids below the minimum bid value are disregarded by **auction** server application 111.

Reserve Bid: An optional value specifying a price below which the seller... increment.

Toggle to use or not use Dynamic Bid Time (optional): This switch tells the **auction** server to extend or not to **extend** the **auction duration** if bids are being received **close** to the end of the specified **auction** duration. When the switch is turned on, the **auction** will be extended until no bids are received for a length of time corresponding to... bid time.

The product data submitted by the user is checked for completeness by the **auction** server application 111 and, if the information is complete, the UIN assignor assigns a UIN to the product. The product data and UIN are then stored in the **auction** database 112.

When the **auction** commences, bids concerning the product are also stored in the **auction** database 112.

A user may browse products available for **auction** on the **auction** database 112 using his computer 115 via the internet 19. If a user wishes to... s identity is authentic, the user's bid for the product is accepted by the **auction** server application 111 and stored in the **auction** database 112. The user's bid is identified for a particular product using the product... for a specific value. An automatic bid specifies a maximum bid by the user. The **auction** and trade handler then acts as a proxy for the user **bidding** by the minimum increment for the product up to the user's specified maximum in an attempt to win the **bidding** for the product by the minimum possible incremental value.

Once the user has registered their... and bid up process.

When a user's bid for a product is beaten, the **auction** and trade handler instructs the message dispatcher to send an SMS message to the user's GSM mobile phone 117. The **auction** and message trade handler retrieves the user's

mobile phone number from the user information... ..the message dispatcher to be included as the "recipient" field of the SMS message.

The **auction** and trade handler also forwards the product's UIN to the message dispatcher, which concatenates... ..and inserts the resultant number in the "sender" field of the SMS message.

Finally, the **auction** and trade handler forwards a message text to the message dispatcher for inclusion as the message body of the SMS message. The message text composed by the **auction** and trade handler includes information concerning the product, such as the product title, the current... ..server 15 decodes the UIN from the message, and on recognising that it concerns the **auction** server application 111, invokes the message receiver of the **auction** server application.

Upon receiving the SMS message, the message receiver extracts the product UIN from... ..and the text message of the SMS message and forwards these to the trade and **auction** handler.

The trade and **auction** handler is able to identify the product from the product UIN. Further, the trade and **auction** handler can identify the user from their GSM mobile telephone number. In the event that a higher bid has already been received from another user, or the user's **bidding** instructions were indecipherable, the **auction** and trade handler sends a reply SMS message to the user's GSM mobile phone 117 notifying them of the error. Otherwise, the trade and **auction** handler enters the bid from the user in the **auction** database 112 for that product. Optionally, if the bid is successfully received, the **auction** and trade handler may send a reply SMS message to the user's GSM mobile... ..bid was successfully received.

In addition to sending notification to the previously highest bidder, the **auction** trade handler may also be arranged to send the same notifications to some or all... ..the users that have bid for that product.

Now describing an actual example of an **auction** format wireless discussion board between wireless clients that have been registered by the **auction** server application to participate in an **auction** conducted by the host server 15, reference is made to Figures 9 to 11.

As shown in Figure 9 of the drawings, a sample **auction** format wireless discussion board 119 is shown in a similar format as to the way it would appear on the website of the trade and **auction** service described above.

In the illustrated example, the discussion board 119 specifically pertains to item... ..item number would constitute the UIN for the prescribed action involved with participating in the **auction** of the item itself and would be included in the "send to" address along with... ..in the specific example is a "Nokia 6110" mobile phone.

In this example of the **auction** format wireless discussion board 119, the prospective buyer "Mikey" sends an SMS message from his... ..the manner previously described, authenticating the sender of the message through the agency of the **auction** server application after decoding the UIN, whereupon the requisite message will be entered in the **auction** database and virtually posted to the discussion board 119, enabling the message to be viewed on the **auction** website of the host server that pertains to the particular item.

In the present embodiment, in order to facilitate participation in the **bidding** process by bidders who only have GSM devices and not access to a browser based... ..and users is 23301. All of the users have previously registered with the trade and **auction** service hosted by the host server so the registration process is by-passed.

The process... ..the host server 15 as indicated by box 143, accessing its user information database and **auction** database 112 as appropriate, as represented by 145. This processing will include entering the message on the **auction** database 112 and then actioning a routine which broadcasts the posted message to the top... ..efficient and convenient method and system for the authentication and transmission of instructions for an **auction** and trading system whose users have messaging-capable wireless devices such as SMS-enabled GSM... ..wireless clients, as

provided in the present embodiment, generally follow the same format as the **auction** format wireless discussion board described above in the trade and **auction** service of the commercial transaction application. Accordingly, they can all simply be accommodated by the...using the "?" command, similar to the way in which this command is used in the **auction** room scenario previously described. Sending this command to the NIN in an SMS message from...

Claims: ...9. A messaging system as claimed in claim 8, wherein the commercial transaction is an **auction**, the entity is a product or item that is being auctioned, and the message is concerned with a bid at the **auction** in relation to a specific product or item.

10. A messaging system as claimed in...

11/K/23 (Item 5 from file: 348)

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Specification: ...perceived closing time.

Accordingly, the present invention provides solutions to the shortcomings of prior online **auctions**. Those of ordinary skill in the art will readily appreciate, therefore, that those and other... ..Figure 1A is a schematic illustration of the entities involved in an embodiment of an **auction** wherein the sponsor identifies goods or services to be purchased in a request for quotation;

Figure 1B is a schematic illustration of entities participating in an embodiment of an **auction**;

Figure 1C is a schematic illustration of entities participating in an embodiment of a contract award following an **auction**;

Figure 2 is a schematic illustration of communications links between the coordinator, the buyer, and the suppliers in an embodiment of an **auction**;

Figure 3 is a schematic illustration of **auction** software and computers hosting that software in an embodiment of an **auction**;

Figure 4 is a schematic illustration of an embodiment of an **auction** network;

Figure 5 is a flow diagram illustrating a method of synchronizing **auction** time, in accordance with the present invention;

Figure 6 is a flow diagram illustrating a... ..is a time line illustrating a method of passing network latency calculation messages between an **auction** processor and a participant processor, in accordance with the present invention;

Figure 9 is an **auction** time line illustrating an **auction** segment wherein an **auction** processor, a first participant processor, and a second participant processor interact in accordance with the present invention;

Figure 10 is another **auction** time line that illustrates an **auction** segment in which a participant processor is non-responsive, in accordance with the present invention;

Figure 11 is another **auction** time line that illustrates an **auction** segment in which a late bid is submitted and accepted, but does not trigger overtime **bidding**, in accordance with the present invention; and

Figure 12 is yet another **auction** time line that illustrates an **auction** segment in which a participant processor is permitted to change to an open state to... ..to the present invention, while eliminating, for purposes of clarity, other elements found in typical **auction** systems and computer networks. The present invention described below extends the operation of the inventive **auction** systems and methods described in greater detail in copending United States Patent Application Serial Number 09/252,790, entitled "Method and System for Conducting Electronic **Auctions**" filed ...Patent Application Serial Number 09/311,555, entitled "Method and System for Controlling an Electronic **Auction** During the Transition to a Closed State" filed May 14, 1999, the disclosures of which... ..in the specification are not necessarily all referring to the same embodiment.

In a supplier-**bidding auction** or reverse **auction**, bids, which are often in the form of a price quote, typically start high and move downward over time as bidders interact to establish a closing price. Typically, the **auction** marketplace is one-sided, with one buyer and many potential suppliers, although multiple-buyer **auctions** are possible. Typically, products are purchased in the form of components or materials. "Components" may... ..include corn syrup and sheet steel. Services may also be purchased in such a reverse **auction**.

The basic process for a purchaser sponsored supplier-**bidding** or reverse **auction**, as conducted by the assignee of the present invention, is described below with reference to... ..illustrates the functional elements and entities involved in setting up and conducting a typical supplier-**bidding auction**. Figure 1A illustrates the creation of an **auctioning** event, Figure 1B illustrates the **bidding** during an **auction**, and Figure 1C illustrates results after completion of a successful **auction**.

As will be apparent to one skilled in the art, while the invention is generally... ..the present invention may also be used in other types of electronic markets, such as **auctions** having multiple potential buyers and sellers, forward **auctions** having a single seller and multiple potential purchasers, upward-**bidding auctions**, or electronic exchange marketplaces. The term "sponsor" will be utilized herein to identify the party or parties that originate the **auction**. In a forward **auction**, for example, the sponsor would typically be the supplier or seller of one or more goods or services. In such a forward **auction**, that sponsor might state a good that it desires to sell and receive bids from... ..parties wishing to purchase that good would furthermore be "bidders" 30 in such a forward **auction**.

In a reverse **auction** example, the sponsor would typically be the purchaser or buyer of one or more goods or services. In such a reverse **auction**, that sponsor might state a good that it desires to purchase and receive bids from... ..parties wishing to supply that good would furthermore be "bidders" 30 in such a reverse **auction**.

In the typical supplier-**bidding** reverse **auction** model, the product or service to be purchased is usually defined by the sponsor of the **auction**. As shown in Figure 1A, when the sponsor 10 decides to use the **auctioning** system of the present invention to procure products or services, the sponsor 10 provides information to an **auction** coordinator 20. That information may include information about incumbent suppliers and historic prices paid for... ..services to be auctioned, for example. Typically, the sponsor 10 may also work with the **auction** coordinator 20 to define the products and services to be purchased in the **auction** and, if desired, lot the products and services appropriately so that needed products and services can be procured using optimal **auction** dynamics. A specification may then be prepared for each desired product or service, and a Request for Quotation ("RFQ") generated for the **auction**.

Next, the **auction** coordinator 20 typically identifies potential suppliers 30, preferably with input from the sponsor 10, and invites the potential suppliers 30 to participate in the upcoming **auction**. The suppliers 30 that are selected to

participate in the **auction** become bidders 30 and may be given access to the RFQ, typically through an RFQ... ..on paper or in an electronic format.

As shown in Figure 1B, during a typical **auction**, bids are made for lots. Bidders 30 may submit actual unit prices for all line items within a lot, however, the competition in an **auction** is typically based-on the aggregate value bid for all line items within a lot... ..bid for a lot may, therefore, depend on the level and mix of line item **bids** and the **quantity** of goods or services that are offered for each line item. Thus, bidders 30 submitting... ..at the line item level may actually be competing on the lot level. During the **auction**, the sponsor 10 can typically monitor the **bidding** as it occurs. Bidders 30 may also be given market feedback during the **auction** so that they may bid competitively.

Feedback about **bidding** activity and bidder 30 identity, is referred to as "market feedback" and includes any information... ..and any other bid related information or data that is received before or during the **auction**. Market feedback may include, for example, bids that have been placed by other bidders 30... ..with one or more bidders 30. Providing such market feedback to bidders 30 in an **auction** helps create real-time competitive interaction among participants in the **auction** because, without feedback, bidders 30 who are not leading in an **auction** might not be aware of their relative position and would have less incentive to revise... ..and place additional bids to remain competitive. Where market feedback refers to information from an **auction** that is provided to one or more bidders, it follows that the term "market" refers broadly to all information received in an **auction**.

After the **auction**, the **auction** coordinator 20 may analyze the **auction** results with the sponsor 10. The sponsor 10 typically conducts final qualification of the low **bidding** bidder or bidders 30. The sponsor 10 may furthermore retain the right not to award business to a low **bidding** supplier 30 based on final qualification or other business concerns. As shown in Figure 1C... ..one supply contract is usually drawn up and executed based on the results of the **auction**.

The **auction** may be conducted electronically between bidders 30 at their respective remote sites and the **auction** coordinator 20 at its site. In an alternative embodiment, instead of the **auction** coordinator 20 managing the **auction** at its site, the sponsor 10 may perform **auction** coordinator tasks at its site.

Information may be conveyed between the coordinator 20 and the... ..known communications medium. As shown in Figure 2, bidders 30 may be connected to the **auction** through the Internet via a network service provider 40 accessed, for example, through a dial-up telephone connection. Alternately, sponsors 10 and bidders 30 may be coupled to the **auction** by communicating directly with the coordinator 20 through a public switched telephone network, a wireless... ..scope of the present invention.

A computer software application may be used to manage the **auction**. The software application may include two components: a client component 31 and a server component... ..in Figure 3, the server component of that embodiment includes an operating system 24, competitive **bidding** event or **auction** communication software 26, and Internet protocol software 27. The server software is hosted on a... ..client component 31. The client component of the embodiment illustrated in Figure 3, includes competitive **bidding** event communication software 37, and Internet protocol software 35. The client component software is hosted... ..The client component 31 is used by the bidders 30 to make bids during the **auction**, and to receive and display feedback from the

auction. The client component may, for example, be a program that is installed on a bidder... ..using the client component of the application, thereby ensuring that sponsors 10 cannot circumvent the

bidding process, and that only invited bidders 30 participate in the **bidding**. Each computer software application may be stored in a data storage device and executed by... ..with Figure 4 hereinbelow.

Bids are sent over the communications medium to, for example, the **auction** coordinator, or where the sponsor 10 is performing **auction** coordination tasks, directly to the sponsor 10. Bids are received by the server component 23... ...in market conditions and plan competitive responses.

The embodiments described herein utilize an online reverse **auction**, wherein the present invention is performed by a computer processor, as an example in which the present invention may be utilized. In those examples, **bidding** suppliers 30 bid to supply goods or services to a purchaser 10 and the purchaser... ...other than a computer processor. The present invention may also be utilized in connection with **auctions** other than reverse **auctions**. For example, the present invention may be advantageously utilized with forward **auctions**, wherein the party offering the highest priced qualified bid, rather than the lowest priced qualified bid, is awarded the goods or services being sold. In the case of a forward **auction**, the "leading bid" is the highest amount offered and the leading bidder 30 is the purchaser party 10 making that highest offer, while in a reverse **auction**, the "leading bid" is the lowest amount offered and the leading bidder 30 is the **bidding** party 30 making that lowest bid. Similarly, placing a "better bid" in a reverse **auction** indicates placing a lower bid, while placing a "better bid" in a forward **auction** indicates placing a higher bid.

Figure 4 is a diagram illustrating an **auction** network 70 of the present invention for operating an **auction**, and into which the server component 23 and client component 31 may be incorporated. The **auction** network 70 may be divided into three functional sections: a client access network 71, a... ...and may be located at each bidder 30 and purchaser site 10 for accessing the **auction**. The client machines 72 may access the **auction** by, for example, connecting to a web site operated by the party hosting the **auction**. The client machines 72 may also receive software from the communications network 73 that facilitates... ...that executes applicable software, and a data storage device that stores applicable software and other **auction** data.

The primary communications servers 74 are utilized to provide information to bids 58 received... ...if a failure occurs in the primary communications servers 74, thereby providing redundancy to the **auction** network 70.

The directory, login, and reporting servers 90 may perform a variety of functions... ...90 may include a web server that acts as a portal for access to the **auction** network 70. As such, the directory, login, and reporting servers 90 will receive login requests for access to the **auction** network 70 via, for example, the Internet. The directory, login, and reporting servers 90 may... ...reporting servers 90 will direct the client machine 72 to the appropriate portion of the **auction** network 70. The directory, login, and reporting servers 90, may provide reports to client machines 72. For example, information from prior **auctions** which may be utilized by purchasers 10 to make a decision as to which bidder... ...the sale and to permit the purchaser 10 to consider the way in which the **auction** proceeded so that future **auctions** may be refined.

The production servers 77 run the **bidding** software that facilitates the **auction** process such as, for example, the software illustrated in Figures 5 and 6. The production... ...if a failure occurs in the production server 77 that is being utilized in an **auction** event, the redundant backup production server 77 may perform the functions of the failed production server 77 and, thus, prevent failure of the **auction**.

The training and reporting servers 80 operate in a manner similar to the production servers 77 and provide reports for **auctions**. It is useful to operate test **auctions** to test the operating systems and to train personnel and clients. Such testing may be... ...on the production servers 77 or, to prevent any degradation of system operation in actual **auctions**, one or more separate training servers may be utilized for testing and training. Reporting may... ...model or any other model known to those skilled in the art.

Data related to **auctions** may furthermore be held in one or more storage devices. The data storage devices may... ...memory device (RAM), or a read only memory device (ROM). The data may include pre-**auction** data, post **auction** data, and data that is related to active **auctions**. Pre-**auction** data may include, for example, bidders 30 that are permitted to bid on a particular **auction** and the scheduled **auction** starting and ending times. Post **auction** data may include the bids and bid times received in a particular **auction** and reports displaying that data in user friendly

formats. Active **auction** data may include data received from the bidders 30 as the **auction** is taking place and related data such as the rank of each bidder 30.

An **auction** may alternately be based on ...other than price, including total value and any other factor that is useful in an **auction** setting. A bid or bid amount is a value that is submitted by each participating... ..a number of ways including, for example, absolute total value, or comparative value such as **bidding** in relation to an index price.

Three databases, or groupings of databases, are incorporated into the **auction** network illustrated in Figure 4. The production databases 84 hold data that will be used... ..reporting servers 90 provide an initial contact point for the client machines 72, access to **auctions** in which the client machine 72 is permitted to participate, and reports relating to active and closed **auctions**.

One skilled in the art will recognize that certain components of the network described herein, while beneficial to an **auction** network, are not necessary components in an operational **auction** network. For example, the secondary communications servers 75 could be removed where the benefit of... ..the bid servers 77 and 80.

The present invention permits a sponsor 10 or an **auction** coordinator 20 conducting an **auction** to synchronize an "auction time" at participant processors with an "auction time" at an **auction** processor over a network. The participant processors are processors used by bidders 30 and/or sponsors 10 and may include the client machines 72 of Figure 4. The **auction** processor is one or more processor used to coordinate the **auction** and may include all equipment illustrated in the communications network 73 and data processing network 76 of Figure 4. The "auction time" is a time typically kept by the **auction** processor and used to determine changes in **auction** state, including opening and closing times. For example, an **auction** may be scheduled to open at 1:00 PM **auction** time, at which time **bidding** is to begin, and close at 2:00 PM **auction** time, at which time **bidding** is scheduled to end. That **auction** time must, furthermore, be a time that is common to all bidder and **auction** processors. Participant processors may, for example, be located in time zones that are different than the **auction** processor and, therefore, may operate on different local times. Those bidders will, therefore, need to operate on **auction** time, rather than local time, to participate in the **auction**. Furthermore, because clocks in separate processors operate independently, clocks in various processors will not typically... ..precision. Bidders, however, must have the clocks in their participant processors synchronized closely with the **auction** processor so that bidders may submit bids up until the final seconds of the **auction** without fear that the **auction** processor will reject those bids due to a lack of synchronization between the processor clocks when **bidding** ends. Thus, even participant processors that are in the same time zone as the **auction** processor may need to operate on an **auction** time that is synchronized to the **auction** processor. Furthermore, it may be desirable for an **auction** processor to accept a bid received at the **auction** processor after an end of **bidding** time if it can be verified that the bid was placed prior to the end of **bidding** time. For example, a bidder may place a bid through a participant processor two seconds before the **bidding** is scheduled to end per the synchronized **auction** time at the participant processor. Network latency, or the time that it takes for the... ..it takes ten seconds for the message to be transferred through the network to the **auction** processor. The bid, therefore, would not be received at the **auction** processor until eight seconds after the end of **bidding** time. Thus, a method and system that recognizes when a bid is placed prior to the end of a biddable state but received at the **auction** processor during a non-biddable state and accepts such a bid is beneficial and is... ..embodiment of the present invention.

A change of state may be initiated by either the **auction** processor or by one or more of the participant processors. A tension may exist between those approaches in their simplest forms, wherein a change of state initiated by an **auction** processor beneficially permits an **auction** to close for all participant processors at the same moment and a change of state... ..state from a biddable state to a non-biddable state occurs at an end of **bidding** time. ...processor may check one or more conditions precedent to a state change, such as the **auction** time being kept locally on the participant processor, on a regular basis and change to a different state when the local **auction** time reaches a predetermined time. That approach beneficially permits a participant at each participant processor... ..state will occur for him by watching the clock on his local processor. Thus, where

auction time is not synchronized precisely between **auction** and participant processors or where network latency causes a delay in the receipt of a... ..or more bids until the change of state is to occur, as perceived by the **auction** time at each individual participant processor.

Alternately, an **auction** processor may initiate a change of state. The **auction** processor may, for example, change from a biddable to a non-biddable state a predefined **auction** time and effectuate that change by not accepting bids received from participant processors after that time. The **auction** processor may also change state by sending a message to each participant processor instructing each... ..also be beneficial for an acknowledgement to be sent from a participant processor to the **auction** processor confirming that the participant processor has changed state. Thus, when a participant processor makes a decision to change state, that processor may send an acknowledgement to the **auction** processor confirming that that processor has changed state. Similarly, when an **auction** processor instructs a participant processor to change state, that processor may send an acknowledgement to the **auction** processor confirming that the participant processor has changed state as instructed. The acknowledgement may be utilized for a variety of purposes including informing the **auction** processor that each participant processor has properly changed state and, thereby, confirming that each participant processor has acted as expected. The acknowledgements may cause an **auction** to change state, for example, from pending to closed, when each participant processor has acknowledged that it has terminated **bidding**. Alternately, acknowledgements may be directed to an operator who uses the acknowledgement information to make decisions such as an **auction** closing decision. The **auction** processor may also send a message to the participant processors acknowledging that the **auction** processor has changed the state of the **auction**.

It may also be desirable for an **auction** processor to accept a bid placed by a participant processor after an end of **bidding** time as perceived at the **auction** processor as long as the bid was placed prior to end of **bidding** time as perceived at the participant processor. The present invention, therefore, also discloses methods and systems that allow an **auction** processor to accept one or more bids after the **auction** processor transitions to a non-biddable state if those bids were sent before a legitimate... ..a biddable state to a non-biddable state is initiated by a participant processor, the **auction** processor may accept a bid placed from a participant processor prior to the change to the non-biddable state at the participant processor even if the **auction** processor perceives that the non-biddable state occurred prior to a time when the bid was received by the **auction** processor. Similarly, the **auction** processor may accept a bid placed from a participant processor prior to the change to the non-biddable state at the participant processor even if the **auction** processor perceives that the non-biddable state occurred prior to a time when the bid was sent by the **auction** processor.

The present invention may, for example, be executed on the **auction** network 70 described in connection with Figure 4, or may be operated in association with other known mechanisms. The **auction** processor may include the devices comprising the communications network 73 and data processing network 76... ..comprise the client machine 72 of Figure 4 and each bidder may participate in the **auction** by using a participant processor. A sponsor may also participate in an **auction** through a participant processor in an embodiment where a sponsor is, for example, connected to an **auction** processor operated by a third party such as an **auction** coordinator 20. Alternately, a sponsor may utilize an **auction** processor where, for example, the sponsor 10 is operating its own **auction**.

The present invention may include two components. The first component is described in connection with Figures 5-8 and is directed primarily to synchronizing **auction** time at each participant processor with **auction** time at the **auction** processor. The second component is described in connection with Figures 9-12 and is directed primarily to accepting bids at the **auction** processor that are submitted from the participant processors prior to an end of **bidding** time. Time Synchronization

Figure 5 illustrates a method of synchronizing **auction** time 200, wherein the **auction** processor sets a clock at each participant processor so that each participant processor matches the **auction** time at the **auction** processor and is

compensated for network latency. In that embodiment 200, the **auction** processor establishes an **auction** time at the **auction** processor at 202 by, for example, reading the current time from a clock coupled to the processor. At 204, the **auction** processor determines the network latency, or time required for a message to travel across the network. Once the **auction** time and network latency are established, the **auction** processor performs a calculation at 206 to determine a time that should be sent to the participant processor, to set the **auction** time at the participant processor while compensating for network latency. At 208, the latency compensated **auction** time is sent to the participant processor and at 210, that **auction** time is utilized to update an **auction** time at the participant processor. The **auction** processor checks its clock to determine the current time at 212. At 214, the **auction** processor determines whether the end of **bidding** time has passed. If the closing time has passed, the **auction** processor stops updating **auction** time. If the closing time has not passed, the **auction** processor will determine whether an **auction** update interval time has elapsed at 216. If the **auction** update interval time has elapsed, the process will return to 208 to again update the **auction** time at the participant processor.

Alternately, if the **auction** update interval time has elapsed, the **auction** processor may return to 204 or another step in the process flow to recalculate latency time and then update the **auction** time at the participant processor. As will be recognized, a plurality of bidders typically participate in an **auction**, therefore, the method of synchronizing the closing of a network **auction** 200 will typically be utilized to synchronize **auction** time for each bidder participating in an **auction**.

Figure 6 illustrates a method of determining network latency 220. At 222, the **auction** processor sends an initiating message to the participant processor. That initiating message requests that the participant processor immediately return a message to the **auction** processor. At 224, the return message is sent to the **auction** processor. At 226, the **auction** processor will compute the "round trip latency time" which is equal to the difference between the time that the initiating message was sent from the **auction** processor and the time that the return message was received at the **auction** processor. Because the time required to send a message from a first place in a... ..a message back from the second place to the first place, network latency from the **auction** processor to the participant processor and network latency from the participant processor to the **auction** processor may be assumed to be half of the round trip latency time. Thus, at... ..also referred to hereinafter as the "latency time" for a message to travel from the **auction** processor to the participant processor or from the participant processor to the **auction** processor is calculated by dividing the round trip latency time by two.

Figure 7 illustrates... ..latency 240 that relies on a presumption that the time clocks at the bidder and **auction** processors are set at the same time. At 242, the **auction** processor sends an initiating message to the participant processor. That initiating message requests that the participant processor return a "time stamped" message to the **auction** processor at 244. The term "time stamp" indicates that the time the message is sent... ..included in the message when sent. At 246, the return message is sent to the **auction** processor. Thus, the **auction** processor will read the time stamp on the message when the message is received at 248. The **auction** processor will also check the time at its own coupled clock at 250. At 252, the **auction** processor will subtract the time stamped and received at 248 from the receipt time read at 250 to determine one-way latency time from the participant processor to the **auction** processor.

Network latency encountered in, for example, the Internet, may be caused by such factors... ..however, is fairly stable over periods of time, such as the length of a typical **auction**. Therefore, depending on the accuracy desired, latency may be calculated by, for example, a single... ..Referring again to Figure 5, after the one-way latency time has been established, the **auction** processor will update **auction** time at the participant processor, taking into account the one-way latency time, at 206 time required to send a message to the participant processor from the **auction** processor, in a certain embodiment, the **auction** time sent to the participant processor may be calculated by adding the one-way latency time to the **auction** time at the time the **auction** time message is sent.

Alternately, the **auction** time sent to a bidder may be equal to the **auction** processor **auction** time plus the one-way latency time plus a buffer time. The buffer time may... ..of the one-way latency time. The buffer time may be added

to the bidder **auction** time to assure that a bid placed by the bidder from the participant processor prior to the end of **bidding** time at the participant processor is accepted by the **auction** processor even if the latency time for that particular message is greater than the previously... ..used when compensating for network latency is to add the round trip latency to the

auction processor **auction** time. Where it is desired to change the state in an **auction** at a predetermined time without waiting for late messages to be received, it may be desirable to add the round trip latency time to the

auction time. When round trip latency is added to **auction** time, one half of the round trip latency time is used in sending the time... ..will be set at a time that is later than the time set at the **auction** processor by an amount equal to the one-way latency time. The other half of... ..time that will be experienced when sending a bid message or other message to the **auction** processor. The open **bidding** period will, therefore, end at each participant processor at a time equal to the one-way latency time prior to the end of the open **bidding** period at the **auction** processor. That early end to **bidding** may be, for example, the same amount of time for each participant and be equal... ..the longest one-way latency time experienced by any participant. Alternately, that early end to **bidding** may, for example, be calculated separately for each participant. Thus, by adding round trip latency time to the **auction** time sent to each participant processor clock in the synchronization message, each participant processor clock is offset to allow a message sent just prior to the end of the open **bidding** period (per the participant processor clock) to be received at the **auction** processor prior to the end of the open **bidding** period (per the **auction** processor clock).

The **auction** time may furthermore be updated at the participant processor at regular or random intervals, such as, for example, one-minute intervals, during the **auction**. In that way, clocks in various processors that operate at different rates and varying levels... ..between synchronization updates. Furthermore, regular resynchronization minimizes the danger that a bidder will reset its **auction** time maliciously to enable that bidder to place a bid after the end of **bidding** time. Such malicious interference is minimized because it must occur during the short period between... ..8 is a time line 260 illustrating the passage of latency calculation messages between an **auction** processor and a participant processor. The time line of Figure 8 and the other time... ..and end at a later time at the bottom of the chart. At 262, the **auction** processor sends an initiating message. At 264, the participant processor returns a message to the **auction** processor. At 266, the **auction** processor sends a message to the participant processor that updates **auction** time at the participant processor with a latency-compensated **auction** time.

It should be understood that **auctions** typically have changes of state that are based on time. For example, an **auction** may include an available state during which **auction** parameters are set and may be viewed by participants. Bids may often be prepared during... ..state. The available state may be followed by an open state that begins at the **auction** opening time. Bids are typically accepted during the open state. The **auction** also typically has an end of **bidding** time, after which bids are no longer accepted. Thus, at the end of **bidding** time, the state may revert to a closed state or, as in the present example... ..In the pending state, bids placed after the closing time are not accepted by the **auction** processor, but bids that were sent prior to the closing and received after the closing... ..situations, bids that were sent at a time at which a bidder reasonably perceived the **auction** to be open, may be accepted. One or more bids or other changes to the... ..for example, where participant processor connection problems occur. Where a pending state is utilized, the **auction** will transition to a closed state after, for example, a predetermined time period has elapsed... ..state. The overtime state is much like an open state and is utilized primarily to **extend the bidding time** past the scheduled **end of bidding** time. Overtime states are often used in situations wherein a bid is placed prior to, but near the time that the **bidding** is scheduled to end. In such a case, an overtime state may be utilized to... ..wherein multiple lots of goods or services are being auctioned simultaneously. In such a situation, **bidding** for each lot is often scheduled to end at staggered times so that bidders need... ..by the amount of the overtime period.

A paused state is utilized to stop an **auction** during any state and hold the **auction** changeless throughout the paused state to, for example, correct an error or technical problem that... ..or instead of time, to determine whether a bid should be accepted or rejected.

Synchronizing **auction** time at all participant processors, as described above, creates a fair **auction** marketplace from which each bidder is able to know the state of the **auction** and precisely when bidding will end in the **auction**.

Another concern related to on-line **auctions**, however, is whether and how to accept a bid that is sent prior to the end of **bidding** time but which is received at the **auction** processor after the end of **bidding** time. Certain precautions may be taken to warn a bidder that time to end of **bidding** is short, including causing the bidder viewing screen, or a portion thereof, to begin flashing... ..closing. Furthermore the participant processor may disable the ability to submit a bid after the **bidding** time has ended. Those precautions, however, do not solve the problem of accepting a bid at the **auction** processor after closing, when that bid was submitted prior to the end of the **bidding** time.

Auction Processor Initiates Changes of State

Figure 9 is an **auction** time line 330 that illustrates interaction between an **auction** processor represented by the center vertical line 333, a first participant processor labeled "Participant A... ..another indicate messages sent therebetween. The arrows indicate the direction that information is flowing. The **auction** time line 330 of Figure 9 begins just prior to the closing of the depicted **auction**.

Figures 9-12 will be utilized in this section to describe an embodiment of the present invention in which the **Auction** Processor 333 initiates changes in states to pending and closing states. At 332, Participant A Processor 331 reaches the end of **bidding** time and changes state to pending. At that time, Participant A Processor 331 may disable the ability to submit a bid from that processor. At 334, the **Auction** Processor 333 makes an internal decision as to whether the **auction** should change state from open to pending at that time. That decision may, for example, be based on the receipt of a message from each participating bidder informing the **Auction** Processor 333 that each Participant Processor 331 and 335 has entered the pending state, it may be based on the recognition by the **Auction** Processor 333 that the end of **bidding** time has been reached, or it may be based on a combination of the **Auction** Processor 333 and the Participant Processors 331 and 335 recognizing that the end of **bidding** time has been reached.

In this embodiment, wherein the end of **bidding** state is initiated solely by the **Auction** Processor 333, the recognition that the end of **bidding** time has been reached may occur when the **auction** time at the **Auction** Processor 333 reaches a predetermined pending time. As has previously been discussed, the moment that the **Auction** Processor 333 reaches the pending time may not occur simultaneously with recognition by the Participant Processors 331 and 335 of the end of **bidding** time. Thus, because it is difficult to exactly synchronize time in multiple processors, certain participant processors may recognize an end of **bidding** time prior to recognition by the **Auction** Processor 333 and certain participant processors may recognize an end of **bidding** time after recognition by the **Auction** Processor 333. If **auction** time is synchronized as described herein, however, the end of **bidding** time will normally be recognized by all participant processors at very nearly the same time.

In this example, wherein the **Auction** Processor 333 is responsible for determining the transition to the pending state, the **auction** clock at the **Auction** Processor 333 has not reached the predetermined time to transition into the pending state at 334. At 336, Participant A Processor 331 sends such a message, labeled "Bidder A Done **Bidding**" on the Figure, to the **Auction** Processor 333 indicating that no more bids will be submitted from that processor 331. At 338, Participant B Processor 335 reaches the end of **bidding** time and changes state to pending.

At 340, the **Auction** Processor 333 reads **auction** time from the **auction** clock at **Auction** Processor 333 and determines that the predetermined time to switch to pending has occurred. Therefore, the **Auction** Processor 333 changes to the pending ...by 340.

At 342, Participant B Processor 335 sends a message, labeled "Bidder B Done **Bidding**," to the **Auction** Processor 333 indicating that no more bids will be submitted from that processor 335. At 344, the **Auction** Processor 333 may again determine whether the **auction** should change to the end of **bidding** state. The **Auction** Processor 333 has, however, already transitioned to pending and so need not perform the pending check at 344, nor check further for a pending time transition.

After the **auction** has pended, the **Auction** Processor 333 will permit an operator to confirm that all bids have been properly recorded by the **Auction** Processor 333. At 346, the **Auction** Processor 333 ends **bidding** in the **auction** after that all bids have been properly recorded. The **Auction** Processor 333 furthermore broadcasts to all participating Participant Processors 331 and 335 that the **auction** has closed, as shown at 348 and 350. That broadcast may simply be for the... 335 to transition to a closed state.

In the previous example, the Bidder A Done **Bidding** message at 336 was received prior to the **Auction** Processor 333 transitioning to the pending state and the Bidder B Done **Bidding** message at 342 was received after the

Auction Processor 333 transitioned to the pending state. It will be recognized that both the Bidder A Done **Bidding** message at 336 and the Bidder B Done **Bidding** message at 342 may alternately have been submitted prior to or after the pending or end of

bidding time as perceived at the **Auction** Processor 333 by reference to the **auction** processor clock. In any of those cases, however, the **auction** end of **bidding** time is determined by the **Auction** Processor 333 when the **auction** processor clock reaches the pending time and **bidding** will end at that time in the **auction** of this embodiment. Thus, the **bidding** ends in the **auction** when the **Auction** Processor 333 has reached the end of **bidding** time regardless of the status of the participant processors 331 and 335.

The **Auction** Processor 333 may, furthermore, enter a pending state at the earliest of steps 334, 340, and 344 after which the pending time occurs at the **Auction** Processor 333. The **Auction** Processor 333 may alternately change directly to a closed state when the **bidding** time ends, rather than pending and waiting until a later time to close.

In the present embodiment, the **Auction** Processor 333 changes state from pending to closed at 346 and sends acknowledgement messages to... 350 confirming the change of state to closed. It will be recognized that the **Auction** Processor 333 may utilize conditions other than or in addition to **auction** time in its determination of when to change state. For example, receipt of an acknowledgement... to the closed state or such acknowledgement in addition to the passing of a particular **auction** time may be required prior to changing to the closed state.

In an embodiment wherein the **Auction** Processor 333 enters a pending state prior to closing, the pending state may include a period during which an **auction** coordinator 10 confirms that all bids were properly handled by, for example, contacting each bidder 30 to confirm their final bids and bid times. In that embodiment, the **Auction** Processor 333 may enter the closed state after such confirmation takes place and any errors... specific event such as the initiation of the pending state or the receipt of Done **Bidding** messages from all or some participant processors.

Figure 10 is another **auction** time line 370 that illustrates an embodiment of the present invention in which the **Auction** Processor 333 initiates changes in states, and in which a participant processor is non-responsive. In **auction** time line 370, an **Auction** Processor is represented by the center vertical line 373, a first participant processor labeled "Participant... may be noted by reference to Figure 10, that no messages are sent to the **Auction** Processor 373 from Participant A Processor 371 during the **auction** segment illustrated. At any of 372, 376, or 380 the **Auction** Processor 373 may determine whether the conditions for initiating the pending state have been met... that described previously in connection with Figure 9, the pending state is initiated by the **Auction** Processor 373 when the clock at the **Auction** Processor 373 reaches the predetermined pending time. As was illustrated in Figure 9, Participant Processor B reaches a pending state at 374 and acknowledges that state at 378. The **Auction** Processor 373 initiates the pending state when pending time is reached on the **auction** processor clock regardless of whether any the clocks

at the Participant Processors 371 and 375... ..time at which they are to enter the pending state. In the example illustrated, the **Auction** Processor 371 waits for a period of time after pending for receipt of an acknowledgement... ..operator intervention in response to recognition that Participant A Processor is not responding, closes the **auction** at 382. The time period that the **Auction** Processor 373 waits for acknowledgement from each Participant A Processor 371 and 375 may, for example, be 30 seconds from the scheduled end of **bidding** time as perceived at the **auction** processor clock. At 382, the time period has elapsed and the pending period has ended, thus, the **Auction** Processor 373 ends **bidding** in the **auction**. The **Auction** Processor 373 then broadcasts that the **auction** has closed to all participating bidders, as shown at 384 and 386.

Figure 11 is another **auction** time line 400 that illustrates an embodiment of the present invention in which the **Auction** Processor 333 initiates changes in states wherein a late bid is submitted and accepted, but does not trigger overtime **bidding**. Overtime **bidding** refers to a system wherein a bid placed late in an **auction** will trigger the **auction** to stay open for an additional amount of time after that bid is placed and after the scheduled end of the **auction**. In **auction** time line 400, an **auction** processor is represented by the center vertical line 403, a first participant processor labeled "Participant... ..participant processor labeled "Participant B Processor" is represented by the left vertical line 405. The **auction** time line 400 begins just prior to the closing of the depicted **auction**. At 402, the **Auction** Processor 403 makes an internal decision as to whether **bidding** should end in the **auction** at that time. The **Auction** Processor 403 determines that **bidding** should not end at 402 because, for example, pending time has not yet occurred at the **auction** processor clock. Participant B Processor 405 reaches its end of **bidding** time and changes state to pending at 404. At that time, Participant B Processor 405... ..405 in this embodiment. At 406, Participant A Processor 401 sends a message to the **Auction** Processor 403 indicating that no more bids will be submitted from that processor 401. The **Auction** Processor 403 again determines whether **bidding** should end in the **auction** at 408 and determines that **bidding** should not end because pending time has not yet occurred at the **Auction** Processor 403. At 410, Participant A Processor 401 submits a bid to the **Auction** Processor 403. The **Auction** Processor 403 accepts the bid and confirms that acceptance by way of a message sent... ..at 416 and sends a confirming message to that effect at 418. At 420, the **Auction** Processor 403 checks the **auction** processor clock to determine whether pending time has occurred and enters the pending state because the time to enter the pending state has passed at the **Auction** Processor 403. At 422, the **Auction** Processor 403 closes the **auction**, and at 424 and 426 the **Auction** Processor informs the participating participant processors 401 and 405 that the **auction** is closed.

In the **auction** scenario described in connection with time line 400, Bidder A submitted a bid from Participant... ..placed by Bidder A may not have bettered or, in the case of a reverse **auction**, been lower than the lowest bid placed by Bidder B. Thus, in that example, Bidder B may be awarded a contract stemming from the **auction** even though Bidder B was unable to respond to the last bid placed by Bidder A. In certain other circumstances, however, it is desirable to hold the **auction** open after the scheduled closing time, which is known as overtime, to permit bidders an... ..to place additional bids after they have entered the pending state.

Figure 12 is another **auction** time line 400 that illustrates an embodiment of the present invention in which the **Auction** Processor 433 initiates changes in states wherein a participant processor is permitted to change state... ..to respond to a late bid submitted by another bidder. In time line 430, an **Auction** Processor 433 is represented by the center vertical line 433, a first participant processor labeled... ..B Processor" is represented by the left vertical line 435. In time line 430, the **Auction** Processor 433 determines as previously described whether to place the **auction** in a pending state at 432. At that time, the **Auction** Processor 433 allows the **auction** to remain open because the predetermined pending time has not occurred at the **auction** processor clock. At 434, Participant B Processor 435 switches to a pending state such that... ..bids at that time. At 436, Participant B Processor 435 sends a message to the **Auction** Processor 433 informing the **Auction** Processor 433 that Participant B Processor 435 is pending. At 438, the **Auction** Processor 433 recognizes that the **auction** time at the **Auction** Processor 433 has not yet passed and that it has received a pending confirmation from... ..Processor 435 but has not received a pending confirmation from Participant A Processor 431. The **Auction** Processor 433 permits the **auction** to remain in the open state because pending time has not yet occurred at the **Auction** Processor 433. Participant A Processor 431 submits a new bid at

440, after Participant B Processor 435 has changed to the pending state. The **Auction** Processor 433 determines that the bid placed at 440 should be accepted because the pending time has not occurred at the **Auction** Processor 433. At 442, the **Auction** Processor 433 determines that all bidders are to receive an additional open period, or overtime period, during which they may respond to the bid received at 440. The **Auction** Processor 433 also sends a message to Participant A Processor 431 at ...through 450 may be performed in varying order. Furthermore, multiple overtimes may occur in an **auction**, in response to bids placed during overtime periods.

Participant Processors Initiate Changes of State

Figures... ...participant processors initiate changes of state to pending or closed states. Figure 9 is an **auction** time line 330 that illustrates interaction between an **auction** processor represented by the center vertical line 333, a first participant processor labeled "Participant A... ...another indicate messages sent therebetween. The arrows indicate the direction that information is flowing. The **auction** time line 330 of Figure 9 begins just prior to the closing of the depicted **auction**. At 332, Participant A Processor 331 reaches the end of **bidding** time and changes state to pending. At that time, Participant A Processor 331 may disable the ability to submit a bid from that processor. At 334, the

Auction Processor 333 makes an internal decision as to whether the **auction** should change state from open to an end of **bidding** state at that time. That decision may, for example, be based on the receipt of a message from each participating bidder informing the

Auction Processor 333 that each Participant Processor has entered the pending state. That decision may furthermore be made at regular intervals and may be performed throughout the **auction**, when the **auction** is approaching the closing time, or after the end of **bidding** time, as read at the **Auction** Processor 333. Because the **Auction** Processor 333 has not received messages confirming that either Participant A Processor 331 or Participant B Processor 335 has entered the pending state, the **Auction** Processor 333 permits the **auction** to remain open. At 336, Participant A Processor 331 sends such a message, labeled "Bidder A Done **Bidding**," to the **Auction** Processor 333 indicating that no more bids will be submitted from that processor 331. At 338, Participant B Processor 335 reaches the end of **bidding** time and changes state to pending. It should be noted that, even when time synchronization... ...utilized, Participant Processor clocks typically vary by small amounts. Thus, participant processors will recognize that **bidding** in an **auction** has ended very nearly the same time, but not simultaneously.

The **Auction** Processor 333 again determines whether the **auction** state should be changed at 340. Although both Participant Processors 331 and 335 have entered the pending state, the **Auction** Processor 333 has only received a confirming message to that effect from Participant A Processor 331. Thus, the **Auction** Processor 333 again permits the **auction** to remain open. At 342, Participant B Processor 335 sends a message, labeled "Bidder B Done **Bidding**," to the **Auction** Processor 333 indicating that no more bids will be submitted from that processor 335. At 344, the **Auction** Processor 333 again determines whether the **auction** should change to the end of **bidding** state, and determines, at that time, that it is appropriate to change the state to... ...received from each of the two participating Participant Processors 331 and 335. At 346, the **Auction** Processor 333 ends **bidding** in the **auction**. The **Auction** Processor 333 furthermore broadcasts to all participating Participant Processors 331 and 335 that the **auction** has closed, as shown at 348 and 350.

In the preceding example, only two bidders participated in the **auction**. Therefore, after the **Auction** Processor 333 received a message from each of the Participant Processors 331 and 335 confirming that they had entered the pending state, the **Auction** Processor 333 ended **bidding** in the **auction**. As will be readily recognized, however, when more than two bidders are participating in an **auction**, the **Auction** Processor 333 will typically wait until it has received a message from each participant processor confirming that each has entered the pending state before ending **bidding** in the **auction**.

Furthermore, it is noted that the Bidder A Done **Bidding** message at 336 and the Bidder B Done **Bidding** message at 342 may have been submitted prior to or after the closing time as perceived at the **Auction** Processor 333 by reference to the **auction** processor clock. Thus, whether the **auction** processor clock has passed the **auction** end of **bidding** time is not determinative of when **bidding** will end in the **auction**. Rather, the **bidding** ends in the **auction** when each of the participating bidders processors confirm that they have reached the end of **bidding** time.

The **Auction** Processor 333 may, furthermore, enter a pending state of its own after it receives pending... ..each participant processor, or change directly to a closed state. In an embodiment wherein the **Auction** Processor 333 enters a pending state prior to closing, the pending state may include a period during which an **auction** coordinator 10 confirms that all bids were properly handled by, for example, contacting each bidder 30 to confirm their final bids and bid times. In that embodiment, the **Auction** Processor 333 may enter the closed state after such confirmation takes place and any errors have been corrected.

Figure 10 is another **auction** time line 370 that illustrates an **auction** in which a participant processor is non-responsive. In **auction** time line 370, an **auction** processor is represented by the center vertical line 373, a first participant processor labeled "Participant...may be noted by reference to Figure 10, that no messages are sent to the **Auction** Processor 373 from Participant A Processor 371 during the **auction** segment illustrated. At 372, the **Auction** Processor 373 determines whether it has received pending state confirmation and recognizes that it has... ..or 375. Participant B Processor 375 changes to pending state at 374. At 376, the **Auction** Processor 373 performs another of its regular pending state confirmation checks and recognizes that it... ..it has entered the pending state at 378 by sending a confirmation message to the **Auction** Processor 373. When the **Auction** Processor 373 next checks participant processor pending states at 380, the **Auction** Processor 373 recognizes that it has received pending confirmation from Participant B Processor 375 but not Participant A Processor 371. Therefore, the **Auction** Processor 373 permits the **auction** to remain open while awaiting pending confirmation from the other bidder in this example. In this embodiment, however, the **Auction** Processor 373 does not permit the **auction** to remain open indefinitely. Rather, the **Auction** Processor 373 will permit a time period to elapse from the time at which **bidding** is scheduled to end and, if it has not yet received pending confirmation from each participating participant processor, the **Auction** Processor 373 will end **bidding** in the **auction** after the time period has expired. That time period may, for example, be 30 seconds from the scheduled end of **bidding** time as perceived at the **Auction** Processor 373 clock. At 382, the time period has elapsed and the pending period has ended, thus, the **Auction** Processor 373 ends **bidding** in the **auction**. The **Auction** Processor 373 then broadcasts that the **auction** has closed to all participating bidders, as shown at 384 and 386.

Figure 11 is another **auction** time line 400 that illustrates a **bidding** scenario wherein a late bid is submitted and accepted, but does not trigger overtime **bidding**. Overtime **bidding** refers to a system wherein a bid placed late in an **auction** will trigger the **auction** to stay open for an additional amount of time after that bid is placed and after the scheduled end of the **auction**. In **auction** time line 400, an **auction** processor is represented by the center vertical line 403, a first participant processor labeled "Participant... ..participant processor labeled "Participant B Processor" is represented by the left vertical line 405. The **auction** time line 400 also begins just prior to the closing of the depicted **auction**. At 402, the **Auction** Processor 403 makes an internal decision as to whether **bidding** should end in the **auction** at that time. The **Auction** Processor 403 determines that **bidding** should not end because it has not yet received messages confirming that the Participant Processors... ..and 405 have entered the pending state. Participant B Processor 405 reaches its end of **bidding** time and changes state to pending at 404. At that time, Participant B Processor 405... ..from that processor 405. At 406, Participant A Processor 401 sends a message to the **Auction** Processor 403 indicating that no more bids will be submitted from that processor 401. The **Auction** Processor 403 again determines whether **bidding** should end in the **auction** at 408. Only Participant B Processor 405 has confirmed its pending state at that time, therefore, the **Auction** Processor 403 permits the **auction** to remain open. At 410, Participant A Processor 401 submits a bid to the **Auction** Processor 403. The **Auction** Processor 403 accepts the bid and confirms that acceptance by way of a message sent... ..416 and sends a confirming message to that effect at 418. At 420, when the **Auction** Processor 403 checks to determine whether the open state of the **auction** should end, the

Auction Processor 403 determines that it has received pending confirmations from all participating participant processors and ends **bidding**. At 422, the **Auction** Processor 403 closes the **auction**, and at 424 and 426 the **Auction** Processor informs the participating Participant Processors 401 and 405 that the **auction** is closed.

In the **auction** scenario described in connection with time line 400, Bidder A submitted a bid from Participant... placed by Bidder A may not have bettered or, in the case of a reverse **auction**, been lower than the lowest bid placed by Bidder B. Thus, in that example, Bidder B may be awarded a contract stemming from the **auction** even though Bidder B was unable to respond to the last bid placed by Bidder A. In certain other circumstances, however, it is desirable to hold the **auction** open after the scheduled closing time, also known as overtime, to permit bidders an opportunity... have entered the pending state.

Figure 12 is a time line 430 that illustrates an **auction** segment wherein a participant processor is permitted to change state from pending back to open... to respond to a late bid submitted by another bidder. In time line 430, an **auction** processor is "...B Processor" is represented by the left vertical line 435. In time line 430, the **Auction** Processor 433 determines as previously described whether to place the **auction** in a pending state at 432. At that time, the **Auction** Processor 433 allows the **auction** to remain open because it has not yet received pending confirmation from the Participant Processors... bids at that time. At 436, Participant B Processor 435 sends a message to the **Auction** Processor 433 informing the **Auction** Processor 433 that Participant B Processor 435 is pending. At 438, the **Auction** Processor 433 determines that it has received a pending confirmation from Participant B Processor 435 but has not received a pending confirmation from Participant A Processor 431. The

auction, therefore, remains open. Participant A Processor 431 submits a new bid at 440, after Participant B Processor 435 has changed to the pending state. The

Auction Processor 433 determines that the bid placed at 440 should be accepted because, for example, it was received timely either prior to closing time as perceived at the **Auction** Processor 433 or prior to the expiration of an allowable time period after the closing time occurred at the **Auction** Processor 433. At 442, the **Auction** Processor 433 determines that all bidders are to receive an additional open period, or overtime period, during which they may respond to the bid received at 440. The **Auction** Processor 433 also sends a message to Participant A Processor 431 at 444, indicating acceptance... is sent to all bidders at 448 and 450. That overtime notification will enable the **auction** to return to the open state so that each bidder may respond by placing a... through 450 may be performed in varying order. Furthermore, multiple overtimes may occur in an **auction**, in response to bids placed during overtime periods.

In another embodiment of the present invention... embodiment, the message identifier will indicate the order in which the messages were sent. The **Auction** Processor may furthermore read that message identifier and, for example, not accept any bid messages... the present invention, the participant processor is not permitted to determine when the end of **bidding** time passes. Rather, the **auction** processor determines when the **auction** closes. When the **auction** processor makes the closing determination, it may send a message to each participant processor instructing those participant processors to close the **auction**. The participant processors may then respond with confirmation that the processors are ending **bidding** or entering a pending or closed state. In that embodiment, ordering is also desirable, because... simple way of determining whether a bid was placed prior to the closing of the **auction** at the participant processor from which the bid was submitted. Use of a time buffer, similar to that described hereinabove, wherein the close **auction** order is not sent until the closing time has occurred and the time buffer has... a participant processor after that processor changed state to pending may be received at the **auction** processor prior to receipt of the pending confirmation message because of many factors including the... message identifiers, bid messages ordered after the pending confirmation message may be rejected by the **auction** processor. Similarly, messages sent by a participant processor may be stamped with the **auction** time at which they were sent and the order in which they were sent may... be utilized to verify message delivery. For example, where a message

identifier is missing, the **auction** processor could verify that a message sent by a participant processor was not received. The... ..the network or via another communication method such as, for example, telephone.

Also, in an **auction** embodiment wherein the **auction** processor confirms receipt of each message received from each participant processor, the message identifiers may... ..received more than once. For example, a participant processor may send a message to the **auction** processor. If the participant processor does not receive a response in a predetermined amount of... ..the participant processor may send the message a second time to assure delivery to the **auction** processor. Both of those messages may furthermore have the same message identifier attached thereto. The **auction** processor may, therefore, utilize that message identifier to recognize when a message is received more... ..The present invention, therefore, solves the problem of whether to accept a bid at an **auction** processor when that bid is sent at a time when the participant processor indicates that the end of **bidding** time has not yet passed, but when the **auction** processor indicates that the end of **bidding** time has passed. It is noted that such a situation may occur in a variety of ways including imperfect synchronization between the bidder and **auction** processors and due to network latency. That situation may also occur when a time change... ..a participant processor to enable the bidder utilizing that processor to place a bid after **auction** has closed. The present invention also minimizes the danger of such a malicious change by regularly updating **auction** time at each participant processor, limiting the time after end of **bidding** time passes at the **auction** processor that a bid may be accepted, and reopening an **auction** when a late bid is received.

While the invention has been described in detail and... ..from the spirit and scope thereof. In particular, it should be noted that while the **auction** functions described above have been described in the context of downward pricing (reverse) **auctions**, the **auction** functions can be equally applied to upward pricing (forward) **auctions**. Thus, it is intended that the present invention cover the modifications and variations of this...

11/K/24 (Item 6 from file: 348)

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A TRADING AND AUCTION SYSTEM, AND METHODS FOR THE AUTHENTICATION OF BUYERS AND SELLERS AND FOR THE TRANSMISSION OF TRADING INSTRUCTIONS IN A TRADING AND AUCTION SYSTEM

Country	Number	Kind	Date		
Type		Pub. Date		Kind	Text
Available Text		Language		Update	Word Count
Total Word Count (Document A)					
Total Word Count (Document B)					
Total Word Count (All Documents)					

Specification: ...B1

FIELD OF THE INVENTION

The present invention relates to a trading and **auction** system, and to methods for the authentication of buyers and sellers and for the transmission of trading instructions in a trading and **auction** system.

The invention has particular, although not exclusive, utility in allowing users of wireless devices with messaging capability, such as mobile phones, to participate in **auctions** and trades quickly and efficiently.

Throughout the specification, unless the context requires otherwise, the word... ..from a rare coin collection to a second-hand piece of furniture.

Websites that facilitate **auctioning** of goods and services, such as eBay.com, derive success from quickly building a critical... ..a particular transaction, simply choose to walk away from the deal, thereby reneging on an **auction** contract.

These problems are well known and many **auction** sites have sought to address them by introducing various means of bidder authentication and deal... ..bids or reneging on deals, they will be forever barred from doing business on the **auction** site.

Buyers wanting to bid for a product at an **auction** website typically use a computer equipped with an Internet connection and a browser. More recently, several **auction** websites have begun to pursue strategies that give users access to their **auction** accounts using wireless devices. Most use wireless devices, such as pagers or SMS (short message... ..addresses or other fixed commands in the text body of the SMS message, instructing the **auction** engine which action to take. Once sent by the bidder, the message is then sent to the specified e-mail address, eventually to reach the **auction** engine. Since the e-mail address is typically a common one to which several other bidders send their messages, the instruction for the **auction** engine and the particular product being bid upon must be specified within the message itself... ..Wireless Application Protocol or "WAP" are expected to gain popularity in the coming years. Some **auction** sites now allow mobile devices using WAP access to their site. To access the Internet... ..browses the Internet using their WAP phone's small screen.

In the context of an **auction** website, the user accesses the **auction** website using their WAP phone and logs in, perhaps enters a password, and then eventually gains access to his account. The "logged in" mobile user may now engage in basic **auction** activities, such as reading messages notifying him of the status of a bid, and instructing the **auction** server to raise his bid if it has been beaten.

The fact that the WAP... ..using the present "legacy" digital mobile phones acts as a limiting factor to growth of **auction** use through this medium. Further, until the introduction of General Packet Radio Service or "GPRS... ..be cumbersome, requiring users to dial-in to a gateway and log in to the **auction** website each time they want to access their accounts. This necessarily takes time and in... ..the processes a computer Internet user would perform to do the same things on an **auction** website.

Although the preceding discussion focused on **auction** websites, where buyers outbid each other for a certain product or service, many of the above discussions can also be applied to other types of eCommerce and **auction** business models, such as reverse **auctions** (i. e., buyers set prices which sellers are supposed to meet) and fixed price models... ..service.

SUMMARY OF THE INVENTION

This invention seeks to address the present limitations of mobile **auction** processes through the use of the two-way SMS communication facility found in many digital... ..server system and forwarded to the mobile phone of the recipient.

The invention includes an **auction** server that is directly linked to the mobile network's short messaging service. In the present embodiment of the invention, the **auction** server communicates directly with the GSM network's Short Message Service Center's ("SMSC") server system to send and receive short messages or commands via SMS. The **auction** server communicates with the SMSC via the Internet, a direct communication line, or other suitable communication system. Short messages are sent and received from the **auction** server system using the GSM networks' message protocol. In one embodiment of the invention, the... ..a deal, since he can be easily tracked down

and barred from engaging in future **auction** activities. Once barred, a trader will have to access another mobile phone number to re-register and continue using the **auction** system. This is more effective than using simply an email address, since email addresses are... ..set up as compared to mobile phones. Before a buyer or seller can use the **auction** system, they will need to register with the **auction** server. In the present embodiment of the invention, providing a mobile phone number is a... ..mobile-phone-like numeric addresses to each product or service being bid out on the **auction** server. This unique numeric address is used as an identifier in SMS messages sent from the **auction** server, allowing a user to more conveniently and quickly send a command to the **auction** server (e. g., raise a **bid** to a particular **level**) via simple SMS transmissions (e. g., by simply hitting the "Reply" option found in most... ..The invention provides a method for the transmission of trading instructions in a trading and **auction** system, comprising the steps of:

assigning a unique identification number to each product or service for sale or **auction** at said trading and **auction** system;

sending messages to a buyer's wireless device (22) concerning offers or bids made... ..comprise the step of requiring that a buyer authenticate their identity with the trading and **auction** system when placing their first trading instruction in relation to a product or service by an exchange of messages between the trading and **auction** system, in which at least one of said messages are sent or received using said... ..to control and manage SMS to and from said wireless device, wherein said trading and **auction** system is in direct communication, via a direct link or through the computer network, with... ..the access identification number to identify SMS from wireless devices destined for said trading and **auction** system and to forward such SMS directly to the trading and **auction** system.

The trading and **auction** system may be connected to said SMSC server via a computer network.

The invention also provides a trading and **auction** system, comprising: message dispatching means for sending messages to a prospective buyer or seller's... ..to automatically allocate a unique identification number to each product or service for sale or **auction** on said trading and **auction** system; database means for storing the unique identification number of each product and service for sale or **auction** on said trading and **auction** system; and trade and **auction** handling means arranged to send messages to a buyer's wireless device concerning offers or... ..the product or service included in a 'Sender' field of each message; said trade and **auction** handling means further arranged to receive messages concerning a buyer's trading instructions on a... ..trading instructions for that product or service and execute said trading instructions.

The trade and **auction** handling means may be arranged to require that a buyer authenticate their identity with the trading and **auction** system when placing their first trading instruction in relation to a product or service by an exchange of messages with the trading and **auction** system, wherein one of said messages is communicated to said buyer's wireless device via... ..number to identify SMS from the buyer's wireless device destined for said trading and **auction** system and to forward such SMS directly to the message receiving means.

The message dispatching... ..3 are schematic diagrams showing generally how a user can register with a trade and **auction** system; and

Figure 4 is a schematic diagram showing generally how a user can receive notifications concerning his bids and submit further bids to the trade and **auction** system.

BEST MODE (S) FOR CARRYING OUT THE INVENTION

The preferred embodiment of the invention is directed towards a trade and **auction** system that offers an improved authentication process and provides a more convenient **bidding** system for users with messaging-capable wireless devices. The performed embodiment will be described with... ..should be appreciated that the invention is not limited to such devices.

The trade and **auction** system of the embodiment includes an **auction** server 10. The **auction** server 10 comprises a registration handling means (registration handler), a message dispatching means (message dispatcher... ..identification number assigning means (UIN assignor), a database means (database 12), and a trade and **auction** handling means (**auction** handler). These are embodied in the form of program routines that are continuously executed under the control of an operating system in the **auction** server 10 and thus automate the registration and binding process.

The **auction** server 10 is connected to a computer network 14, the internet in this embodiment. This allows a prospective user with a computer 16 to access the **auction** server 10 via the computer network 14 and the user's internet service provider (ISP) 18.

The **auction** server 10 is also linked directly or through the Internet to the GSM network's... ..communication line, or other suitable communication system. Short messages are sent and received from the **auction** server 10 using the GSM network's message protocol. In this embodiment of the invention... ..II") a system adopted by GSM mobile phone and network manufacturers such as Nokia. The **auction** server can also be arranged to support any of the popular short message protocols, such... ..user.

With reference to Figure 1, the user uses their computer 16 to access the

auction server 10 via computer network 14 and their ISP 18. In the registration process, the user 16 accesses a registration form available on the **auction** server 10. The registration form includes fields in which the user must enter essential data... ..into the field in the registration form, the user then submits the information to the **auction** server 10. This can be achieved in a number of ways, such as using a... ..page for the registration form, where the user can submit the entered data to the **auction** server 10. Upon receipt of the essential and optional data from the user's computer... ..authentication process that may be used. The authentication process for new users registering with the **auction** server 10 is performed by the registration handler. As shown, the registration process initially involves... ..contain an instruction to the user to enter the password and submit it to the **auction** server 10 using their computer 16.

Figure 3 shows a second part of the authentication... ..message on their GSM mobile telephone 22, the user submits the temporary password to the **auction** server 10 using the computer 16. Once the user has submitted data entered on the registration form to the **auction** server 10, the user's computer 16 is taken to a further HTML web page... ..the password in a field provided on the web page and submit it to the **auction** server 10. The further HTML web page then explains that once the password has been verified by the **auction** server 10, their account will be activated.

The user enters the password in to their computer 16 and submits the information to the **auction** server 10. Note that the information received by the **auction** server 10 must also identify the user. This can be achieved in a variety of... ..that contains information based on the prior activities of the user, which also allows the **auction** server 10 to identify a user or someone visiting the URL address corresponding to the **auction** server 10. For that session, a cookie, which identifies the user, is associated with that user's account

Upon receipt of the password, the **auction** server 10 verifies that the submitted password is the same as the temporary password stored... ..concatenation of the numeric access and the numeric address assigned by and recognized by the **auction** server 10 as that for registration purposes. The user's SMS message would then be forwarded from the SMSC 20 to the message receiver of the **auction** server 10. The user's id and password can then be verified, since the message...the "sender" field of the SMS message.

In an enhancement to the registration process, the **auction** server 10 dispatches a message to the user's mobile phone 22 containing a message... ..of a numeric access code and a numeric address assigned by and recognized by the **auction** server 10 as that for registration purposes. The numeric access code is used by the SMSC server system 20 to identify the **auction** server 10. Any SMS messages received by the SMSC server system 20 whose "recipient"

field commences with the numeric access code of the **auction** server 10 will be forwarded from the SMSC server system 20 directly to the **auction** server 10 where the message receiver processes the message.

The numeric address code for registration... ..Once registered, a user is able to browse products and services available for trade and **auction** and to place bids for products and services as described in further detail below. Registered users are also able to place their products for trade or **auction** on the **auction** server 10.

To add a product or service to the **auction** server 10, a user submits product data to the **auction** server 10 in a similar manner to that described above for submitting registration data. That is, the user accesses the **auction** server 10 using their computer 16 and accesses an "add new product" HTML web page. The user then enters product data and submits the product data to the **auction** server 10. In an example, the following product data may be required, some optional, from... ..A short description of the product that will appear in lists of products on the **auction** server 10.

User Id: The nickname of the registered user selling the product.

User password... ..product entry. If the password is incorrect, the product will not be added to the **auction** server 10.

Auction Type/Method: The user can specify whether the **auction** is to be conducted as a regular **auction** or as a Dutch **auction**, for example.

Item Description: A more detailed description of the item for sale.

Country: The seller's country.

Auction Start Date and Time: The date and time that the **auction** will commence. Bids for items are not accepted before an **auction** commences.

Auction Duration: The length of time the **auction** will last.

Category: A broad identification, selected from a list, of the type of product... ..to be bid out that can be uploaded directly from the computer 16 to the **auction** server 10, via the internet 14.

Payment Method: The payment method or methods that the user... ..shipping, countries that the seller is or is not prepared to ship to, etc.

Minimum **Bid**: A **threshold** value that sets a minimum value for the first bid. Bids below the minimum bid value are disregarded by **auction** system 10.

Reserve Bid: An optional value specifying a price below which the seller is... ..increment.

Toggle to use or not use Dynamic Bid Time (optional): This switch tells the **auction** server to extend or not to **extend** the **auction** duration if bids are being received **close** to the end of the specified **auction** duration. When being received close to the end of the specified **auction** duration. When the switch is turned on, the **auction** will be extended until no bids are received for a length of time corresponding to... ..bid time.

The product data submitted by the user is checked for completeness by the **auction** server 10 and, if the information is complete, the UIN assignor assigns a UIN to the product. The product data and UIN are then stored in the database 12.

When the **auction** commences, bids concerning the product are also stored in the database 12.

A user may browse products available for **auction** on the **auction** server 10 using his computer 16 via the internet 14. If a user wishes to... ..s identity is authentic, the user's bid for the product is accepted by the **auction** server 10 and stored in the database 12. The user's bid is identified for... ..for a specific value. An automatic bid specifies a maximum bid by the user. The **auction** and trade handler then acts as a proxy for the user **bidding** by the minimum increment for the product up to the user's specified maximum in an attempt to win the **bidding** for the product by the minimum possible incremental value.

Once the user has registered their... ..and bid up process.

When a user's bid for a product is beaten, the **auction** and trade handler instructs the message dispatcher to send an SMS message to the user's GSM mobile phone 22. The **auction** and message trade handler retrieves the user's mobile phone number from the database 12... ..the message dispatcher to be included as the "recipient" field of the SMS message.

The **auction** and trade handler also forwards the product's UIN to the message dispatcher which concatenates the numeric access code of the **auction** server 10 with the received product UIN and inserts the resultant number in the "sender" field of the SMS message.

Finally, the **auction** and trade handler forwards a message text to the message dispatcher for inclusion as the message body of the SMS message. The message text composed by the **auction** and trade handler includes information concerning the product, such as the product title, the current... ..server system 20. The SMSC server system 20 identifies the numeric access code of the **auction** server 10 in the "recipient" field of the SMS message and forwards the SMS message directly to the message receiver of the **auction** server 10.

Upon receiving the SMS message, the message receiver extracts the product UIN from... ..and the text message of the SMS message and forwards these to the trade and **auction** handler.

The trade and **auction** handler is able to identify the product from the product UIN. Further, the trade and **auction** handler can identify the user from their GSM mobile telephone number. In the event that a higher bid has already been received from another user, or the user's **bidding** instructions were indecipherable, the **auction** and trade handler sends a reply SMS message to the user's GSM mobile phone 22 notifying them of the error. Otherwise, the trade and **auction** handler enters the bid from the user in the database 12 for that product. Optionally, if the bid is successfully received, the **auction** and trade handler may send a reply SMS message to the user's GSM mobile... ..bid was successfully received.

In addition to sending notification to the previously highest bidder, the **auction** trade handler may also be arranged to send the same notifications to some or all... ..efficient and convenient method and system for the authentication and transmission of instructions for an **auction** and trading system whose users have messaging-capable wireless devices such as SMS-enabled GSM...

Claims: ...B1

1. A method for the transmission of trading instructions in a trading and **auction** system (10), comprising the steps of: assigning a unique identification number to each of a plurality of products or services for sale or **auction** at said trading and **auction** system;

sending a message to a buyer's GSM wireless device (22) concerning offers or... ..comprising the step of requiring that a buyer authenticate their identity with the trading and **auction** system (10) when placing their first trading instruction in relation to a product or service by an exchange of messages with the trading and **auction** system (10), in which at least one of said messages are sent or received using... ..control and manage SMS to and from said wireless device (22), wherein said trading and

auction system (10) is in direct communication, via a direct link or through the computer network... ..access identification number to identify SMS from wireless devices (22) destined for said trading and

auction system (10) and to forward such SMS directly to the trading and **auction** system (10).

7. A method as claimed in any one of claims 5 or 6, wherein said trading and **auction** system is connected to said SMSC server via a computer network (14).

8. A trading and **auction** system, comprising: message dispatching means for sending messages to a prospective buyer or seller's... ..unique identification number to each of a plurality of products or services for sale or **auction** on said trading and **auction** system (10); database means (12) for storing the unique identification number of each product and service for sale or **auction** on said trading and **auction** system (10); and trade and **auction** handling means (10) arranged to send messages to a buyer's GSM wireless device concerning... ..each message; at least one GSM wireless device (22) adapted to receive a message from **auction** handling means and automatically insert the number from the 'sender' field of the received message into the 'recipient' field of a reply message; said trade and **auction** handling means (10) further arranged to receive messages concerning a buyer's trading instructions on... ..instructions for that product or service and execute said trading instructions.

9. A trading and **auction** system as claimed in claim 8, wherein said trade and **auction** handling means (10) is arranged to require that a buyer authenticate their identity with the trading and **auction** system (10) when placing their first trading i instruction in relation to a product or service by an exchange of messages with the trading and **auction** system (10), wherein one of said messages is communicated to said buyer's wireless device... ..said buyer's wireless device (22) via said message receiving means.

10. A trading and **auction** system as claimed claims 8 or 9, wherein said GSM wireless device (22) is a... ..said SMSC server (20) to send and receive SMS therefrom, respectively.

11. A trading and **auction** system as claimed in claim 10, wherein said message dispatching means is arranged to concatenate... ..to identify SMS from the buyer's wireless device (22) destined for said trading and **auction** system (10) and to forward such SMS directly to the message receiving means.

12. A trading and **auction** system as claimed in claim 10 or 11, wherein said message dispatching means and message...

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Method and system for conducting electronic auctions

Country	Number	Kind	Date
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Abstract ...A2

Type	Pub. Date	Kind	Text
Available Text	Language	Update	Word Count
Total Word Count (Document A)			
Total Word Count (Document B)			
Total Word Count (All Documents)			

Specification: ...A2

Background of the Invention

The disclosed inventions relate generally to conducting electronic **auctions**, and in particular to business-to-business **bidding auctions** for industrial purchasers.

Traditional Procurement Models

Procurement of supplies has traditionally involved high transaction costs... ..that transactions can take place electronically. There are three models for online procurement: catalog, buyer-**bidding auction**, and seller-**bidding auction**.

The "catalog" model of online procurement was the first to be developed. The first electronic... ..time. When many buyers compete for the right to buy from one seller, a buyer-**bidding auction** model is created. A noteworthy example of the buyer-**bidding auction** model is that operated by PriceLine.com and described in U.S. Pat. No. 5... ..accept a bid, thereby committing the buyer to buy the ticket.

The catalog and buyer-**bidding auction** types of electronic markets do not work in some situations however. If the required product... ..possible for buyers to identify the product they want to bid on in a buyer-**bidding auction**. There are fewer suppliers and no standard product and pricing information available for the buyer... ..is hard for a new supplier to enter the market.

Therefore, buyers wanted to use **auctions** to save money. The assignee of the present application developed a system wherein sellers downwardly bid against one another to achieve the lowest market price in a supplier-**bidding auction**.

Supplier-Bidding Auction

In a supplier-**bidding auction**, bid prices start high and move downward in reverse-**auction** format as bidders interact to establish a closing price. The **auction** marketplace is one-sided, i.e. one buyer and many potential suppliers. Typically, the products... ..the same mold. These items are therefore grouped into a single lot. Bidders in industrial **auctions** must provide unit price quotes for all line items in a lot.

Auction Process

The process for a supplier-**bidding auction** as conducted by the assignee of the present application is described below with reference to Figs. 1 and 2. Fig. 1 illustrates the functional elements and entities in an supplier-**bidding auction**, while Fig. 2 is a process diagram that identifies the tasks performed by each of the involved entities.

The supplier-**bidding auction** model requires that the **bidding** product or service be defined by the buyer (identified as Buyer 10 in Fig. 1). An **auction** coordinator (Coordinator 20 in Fig. 1) works with buyers to prepare for and conduct an **auction** and to define the potentially new supply relationships resulting from the **auction**.

As shown in Fig. 2, in the Initial Contact phase 102 of the **auction** process, the coordinator contacts the buyer, and the buyer provides data to the coordinator. The... ..The buyer makes a decision regarding which potential suppliers will receive invitations to the upcoming **Auction**. Suppliers that accept **Auction** invitations are then sent notices regarding the upcoming **Auction**, as well as client software to install in preparation of participating the **Auction**.

In the RFQ phase 104, coordinator 20 works with the buyer 10 to prepare a... ..bid on that portion of the business for which they are best suited.

During the **auction** 56, bids 58 will be taken against individual lots (and their constituent parts 52) within... ..While bidders must submit actual unit prices for all line items, the competition in an **Auction** is based on the aggregate value bid for lots. The aggregate value bid for a lot depends upon the level and mix of line item **bids** and the **quantity** for each line item. Therefore, bidders submit bids at the line item level, but compete on the lot level.

In the **Auction** Administration phase 106, coordinator 20 coordinates the **Auction** and administers the **Auction** setup and preparation. The coordinator sends a RFQ to each participating supplier, and assists participating suppliers with preparation for the **Auction**.

In the **Auction** phase 108, suppliers 30 submit bids 58 on the lots and monitor the progress of the **bidding** by the participating suppliers 30. The coordinator assists, observes, and administers the **Auction**.

When the **bidding** period is over, the **auction** enters the **Auction** Results Administration phase 110. In this phase, coordinator 20 analyzes and administers the **Auction** results, which are viewed by buyer 10. The buyer begins to conduct final qualification of the low **bidding** supplier(s). The buyer may retain the right not to award business to a low **bidding** supplier based on final qualification results or other business concerns.

In the ensuing Contract Administration... ..52 are then drawn up between buyer 10 and suppliers 30.

Communications and Software

The **Auction** is conducted electronically between potential suppliers 30 at their respective remote sites and the coordinator... ..using modems, or direct network connections. A computer software application is used to manage the **Auction**. The software application has two components: a client component 31 and a server component 23... ..suppliers 30. The client component is used by suppliers 30 to make bids during the **Auction**. The bids are sent via the network service provider 40 to the site of the... ..using the client component of the application -- this ensures that buyers do not circumvent the **bidding** process, and that only invited suppliers participate in the **bidding**. Typically, bidders can see their bids and bids placed by other suppliers for each lot... ..quickly the change in market conditions and begin planning their competitive responses.

Conduct of an **Auction**

The conduct of an **Auction** will now be described in conjunction with the operation of the software application. The **Auction** is conducted on a specified date, and commences at a specified time. **Bidding** on each of the lots of products involved is scheduled to begin simultaneously at the start time for the **Auction**. Each lot is assigned a scheduled closing time after which further bids by potential suppliers... ..not coterminous.

Associated with each lot at any given time in the progress of the **Auction** is a **bidding** status. The possible **bidding** statuses are illustrated in Fig. 5. The status initially assigned to each lot, before the scheduled start time of the **Auction**, is "Available." This status indicates that the lot will be available for **bidding** in the **Auction**. In the normal sequence of an **Auction**, the next **bidding** status is "Open," which indicates that the **Auction** is underway and that bids can be submitted for the lot. There are two possible **bidding** statuses to which a lot with an "Open" status can change: "Overtime" and "Closed." Overtime indicates an **extension** of **time** to allow **bidding** to continue after the scheduled closing time for **bidding** on the lot. If **bidding** is still active at the end of a first Overtime period of predetermined duration, the server application allows a second Overtime, and so on, until **bidding** has closed. "Closed" indicates that the server application will no longer accept bids on the lot. A lot's status changes from Overtime only to Closed.

Information regarding the **Auction** that can be displayed by the client application is illustrated in Figs. 6A - 6D at selected times during the conduct of an **Auction**. Fig. 6A illustrates lot information provided at the start of an **Auction**. The lot closing times are shown for each of the lots (01 - 08) as 10... ..the upper right corner of the display.

The presented information changes during the course of **bidding**. For purposes of illustration in this example, a series of bids for lot 01 is... ..status of lot 01 are also illustrated in Fig. 7 for selected times and corresponding **bidding** events during the **Auction**. Fig. 7A shows a time line for lot 01, with the bid event letters corresponding to the bids in Fig. 8.

This **Auction** employs a decision rule to trigger overtime that can be stated: "when a low bid... ..added. Lot 01 therefore closes at 10:32.

Fig. 6B shows the status of the **Auction** at 10:27. Lot 01 is shown as "Open," with a current Market Bid (best current bid) of \$374,586. This reflects the status after **bidding** several bids have been received. Fig. 6C illustrates the status of the **Auction** at 10:30 AM, after bids B and C. In bid B, Bidder15 submitted another best bid (\$373,063), which initiated a one-minute overtime **period, extending** the **closing time** for lot 1 to 10:31. In bid C, Bidder7 submitted another best bid (\$372,500), which initiated another one-minute overtime **period, extending** the **closing time** for lot 1 to 10:32. Bid D, submitted at 10:30:45 was another... ..within one minute of closing, was not a new low bid and therefore did not **extend** the **closing time** for Lot 1. Lot 1 therefore closed at 10:32, with a Market Bid of \$371,373, as shown in Fig. 6D (which shows the status of the **Auction** at 10:32:05).

Bidding Dynamics

Suppliers prepare their price quotes in light of a number of factors. These factors... ..that are not predictable during the preparation of quotations but that are evident during the **auction** can also ...important in determining, for example, how aggressively other participants may bid.

Because business-to-business **auctions** are conducted for important custom components, low bidders may still be "passed over" if other bidders demonstrate non-price advantages.

Sometimes **auctions** involve parts that this purchaser has procured before, and are possibly being made currently by... ..being made by a supplier, that supplier would be termed the "incumbent supplier." In an **auction** situation, the incumbent supplier is placed in a position of having to defend its contract... ..their incumbent status.

Certain human factors must also be considered when conducting business-to-business **auctions** for industrial purchasing. If not considered, these human factors can interfere with achieving desired outcomes. Bidders must be comfortable with the

auction software. Bidders often speak English as a second language, or not at all, making it... ..situations where losing the contract in question literally means losing their business.

Problems with Prior Auction Process

The prior **auction** process described above has been found to produce suboptimal results for buyers in light of... ..include: a) multiple lot closing time collisions; b) premature lot closings; c) difficult and inflexible **bidding** constraints due to lot/line item structure; d) possible prejudice to bidders resulting from technical... ..same time. By spacing the closing times for each lot, a supplier knows that while **bidding** on one lot, the next lot in the **Auction** will not close. This staggered closing is one way to work around cognitive limits - each... ..scheduled closing time of a subsequent lot. This situation begins to tax cognitive limits, and **bidding** opportunities on the subsequent lots are often missed. Although this problem might be resolved by... ..experience has shown that even this approach would not be sufficient. For example, in one **Auction** with 2 lots scheduled with 20 minutes between closing times, actual **bidding** on the first lot continued for 5 hours and 31 minutes after scheduled close.

The second problem is premature closing of **bidding** on lots. Just as in an in-person **auction, bidding** activity tends to increase close to the scheduled closing time. Like the "going, going, gone" **auction** concept, it is possible to achieve a better **auction** price if the **auction** is allowed to continue if bids are still being made. As described above, this concept... ..of a specific lot is automatically extended based on the flow of bids into the **Auction**. Overtime prevents bidders from hanging back and submitting last minute bids in an attempt to... ..incumbent supplier might be expected to do, would not trigger an overtime. Unlike in-person **auctions**, industrial **auctions** need to allow second place bids. Thus, it has been found that this is an overly simplistic model, which may still be cutting off **bidding** too soon. A low bidder needs a chance to react to a second place bid... ..fixed offsets between lot closing times, with fixed trigger time frames (the period before scheduled **closing** or current Overtime **ending**), and fixed **extension periods** for Overtime. In industrial markets, **bidding** events involve commodities of varying complexity and

component packages of different sizes. Accordingly, bidders may... ..respond to a bid. The amount of overtime may need to be customized for specific **bidding** events or for individual lots within an **Auction** to obtain the optimal market dynamic. It is therefore desirable to provide more flexibility in... ..system is that bids needed to be made at the line item level. However, the **auction** takes place at the lot level, where all of the line item quotes are added...this lot may be comprised of hundreds of individual items or cost elements. Initial online **auctions** only allowed line item price adjustments, and it was difficult to fine-tune the mix... ..total lot price bids. This was frequently too time-consuming to keep pace with the **auction**.

With the time constraints on **bidding**, bidders wanted the ability to be able to rapidly adjust the lot price without specifically... ..to be applied selectively instead of universally.

Another problem that can arise either in regular **bidding** or in Overtime is addressing technical disruptions. Real-time technical or operational disruptions in the communications network, software or hardware during the course of a **bidding** event may prevent a bidder from fully participating. Disruptions may arise in the online network... ..the equipment used by an individual bidder.

In addition, market events or imperfections may disrupt **bidding** activity and require communication with bidders before the **auction** can continue. For example, in one **auction bidding** for an **auction** lot commenced and it became clear that some of the bidders were including tooling costs... ..this example, the bidders needed to be contacted and informed of the correction before the **auction** could proceed with all bidders on an equal footing.

Other external factors may disrupt the operation of the **auction** or participation by bidders. In another example, a snow storm prevented many bidders from getting to work on time for the opening of the **auction**. This was not discovered until many bidders failed to commence **bidding**.

With a business-to-business transaction, it is typically commercially unacceptable for any bidder to be denied full participation. However, where disruptions arise in the course of a **bidding** event, the **bidding** activity and positions of other bidders cannot be prejudiced. Accordingly, market closing times may need... ..whether it will be possible to resolve all problems prior to the close of an **auction** lot.

Another problem that occurred in the previous system was the submission of erroneous bids. **Bidding** errors can happen due to the nature of the online **auction**. The pace or intensity of the **bidding** activity can exceed cognitive limits of bidders. In an effort to keep up, bidders enter incorrect quote amounts. Bidders are frequently interested in **bidding** on multiple lots. In the course of monitoring or switching between lots, the bidder erroneously... ..that would be incurred by honoring an erroneous bid is substantial.

In an online industrial **auction**, an incorrect bid can upset the **bidding** behavior of other bidders creating inequity for all participants in the market. All bidders in... ..in error, and the other bidders proceed to bid in response, the integrity of the **auction** is damaged. This can result in suboptimal results for both buyers and suppliers.

Summary of the Invention

The problems encountered with the operation of the prior **auction** system are overcome by the **auction** system of the invention, which enables flexible dynamic alterations of market closing times, line item decision rules, **auction** pause, bidder-specific bid limits, and the ability to detect and prevent erroneous bids.

The... ..be adjusted to suit the complexity and size of the market lots involved in the **bidding** event. This permits bidders to have more overtime to respond to each new bid if... ..trigger for additional overtime can be flexibly set to include a range of behind-market **bidding** activity. The type of behind-market activity that would trigger additional overting includes bids or... ..is triggered when certain bids upset the market dynamic.

In multi-market, or multi-lot **bidding** events, where prior market lots run into overtime, the closing times of subsequent market lots... ..the position of having to bid for different market lots at the same time.

Once **bidding** activity has ceased, a lot is placed into "Pending" status prior to closing the lot... ..technical disruption a lot can be returned to "Open" status for all participants to allow **bidding** activity to continue. Pending status will then be used again to dynamically alter lot closing... ..irrespective of any technical disruptions that occur during the event without prejudicing the positions and **bidding** activity of other bidders.

"Pause" status ensures that disruptions to an **auction** can be dealt with equitably without prejudicing existing **bidding** activity or positions achieved by bidders. **Auction** Pause allows the **auction** coordinator to indefinitely "freeze" an **auction** without disrupting the bids placed before the pause went into effect. The Pause status can be applied to an entire **auction** (all lots) or to specific lots within an **auction**. The Pause status can be applied at any time during an **auction** and will override any other status currently in effect. In one embodiment, no bidder is able to submit bids while the **auction** is in Pause status. In an alternate embodiment, bids may continue to be received but would not be entered into the **auction**. In this embodiment, bids could be held in a queue awaiting entry upon the removal of the Pause status.

Flexible bidder-determined line item decision rules for **bidding** permits bidders to set specific price decision rules for aspects of individual line items within... ..items within a lot. Decision rules can be set dynamically during the course of the **bidding** event by the bidder.

Flexible line-item decision rules enable bidders to lock-in a... ..the comfort of setting floors or ceilings on individual or cost component bids. During the **bidding** event, fixed components can be reevaluated and unlocked if necessary in response to movements in the market beyond original expectations. This **bidding** flexibility allows bidders to participate in the **auction** fully, and increases competition.

Bidder-specific bid rules enable an **auction** coordinator to maximize the competitive nature of an **auction**. In a downward **auction**, each bidder is assigned an individual bid ceiling by the buyer. This bid ceiling sets... ..bid ceilings are advantageous to the buyer because it prevents a bidder from withholding pre-**auction** bids from the market.

The ability to detect, prevent and remove erroneous bids ensures that erroneous bids can be dealt with equitably without prejudicing other bidders or interrupting the **auction**. A confirmation box is presented to the bidder to confirm the amount of a bid... ..entered. All bids must be checked and confirmed before they will be submitted to the **auction** server. Predefined "failsafe" rules allow the bidder to limit bids to a certain range. If during the course of an **auction**, the bidder bids outside that range, additional bid confirmations may be required, or the bidder may be prevented entirely from entering bids that fail "failsafe" criteria. The **auction** coordinator may override or remove erroneous bids from the **auction** in real-time. Bids can be quickly and efficiently removed before it prejudices the positions... ..2 is a schematic illustration of the tasks performed by the entities involved in an **auction** process.

Fig. 3 is a schematic illustration of the communications links between the coordinator and the potential suppliers in an

Auction.

Fig. 4 is a schematic illustration of the client and server components of the computer software application that conducts the **Auction** and the hardware at the sites of the coordinator and the potential suppliers on which the client and server components operate.

Fig. 5 is a schematic illustration of the possible **bidding** states in the prior **auction** system.

Figs. 6A - 6D illustrate the information displayed by the client application in the prior **auction** system at various times during a sample **Auction**.

Figs. 7A - 7B illustrate the change in **bidding** status of one lot in the **Auction** illustrated in Figs. 6A - 6D.

Fig. 8 illustrates a series of bids submitted on one of the lots during the **Auction** illustrated in Figs 6A - 6D.

Figs. 9A - 9B illustrate the changes in **bidding** status and closing times for multiple lots using the **dynamic lot closing extension** feature.

Fig. 10 is a schematic illustration of the possible **bidding** states in the **auction** system.

Fig. 11 is a flow chart illustrating the operation of the **dynamic lot closing extension** feature.

Fig. 12 is a flow chart illustrating the operation of the flexible overtime feature... ..detection features.

Figs. 15A-15C illustrate error detection warning and confirmation messages.

Detailed Description

The **auction** method and system of the invention are described below. Seven aspects of the system and method are described: a) **dynamic lot closing extension**; b) flexible overtime; c) flexible bidder-determined line item decision rules; d) pending status; e) bidder-specific bid limits; f) **auction** pause; and g) error detection and prevention.

Dynamic Lot Closing Extension

The problem identified above of multiple lot closing collisions is addressed with the **dynamic lot closing extension** feature. This feature involves rescheduling, or **extending**, the **closing time** of a subsequent lot when the closing time of a preceding lot is extended to... ..line divided into time intervals of $(\Delta)t$ between times t_1 , t_2 , etc. The scheduled **bidding** periods for two lots in the **Auction** are times t_1 (the opening time for the **Auction**) through t_6 (the initially scheduled closing time) for Lot X, and time $t_1 - t_{11}$ for... ..times t_6 and t_{11} are staggered to permit potential suppliers to focus their attention on **bidding** on a prior lot (Lot X) before it closes, then to turn their attention to **bidding** on a subsequent lot (Lot Y) with adequate time before it closes. The time interval... ..increments $(\Delta)t$.

Fig. 9B shows the changes of status of various parameters in the **auction** as bids are received. Fig. 9B identifies the time interval during which the bid is received, the **bidding** status of Lot X before and after the bid is received, the **bidding** status of Lot Y before and after the bid is received, the closing time of... ..and the closing time of Lot Y before and after the bid is received.

The **Auction** begins at time t_1 . At the beginning of the **Auction**, and during the initial course of **bidding**, both lots have a **bidding** status "Open." During the course of **bidding**, a bid submitted on Lot X can trigger an extension of Lot X's closing... ..of time before the closing time). Thus, bids A and B do not change the **bidding** status of Lot X or the closing times of the lots, because they are not... ..triggers "Overtime" for Lot X. This is reflected in Fig. 9B, which indicates that the **bidding** status of Lot X was "Open" before the bid and "Overtime" after the bid. The scheduled **closing** time for Lot X is **extended** by an Overtime **interval** (defined in this example to be one interval $(\Delta)t$ from t_6 to t_7 . Since... ..Overtime," but because it was received within one increment $(\Delta)t$ of the then-scheduled **closing** time t_7 , the scheduled **closing time** is further **extended** by one increment $(\Delta)t$ to t_8 . Again, there are still at least three intervals... ..effect on the closing time of Lot Y.

When Bid E is received, both the **bidding** status and the closing time of Lot X are unaffected, because the bid is received... ..t's, Bid F triggers Lot Y to change status from Open to Extended, and **extends** the **closing time** for Lot Y to t_{12} .

The Extended status can be applied to more than one... ..lot's closing time to less than the minimum interval, and the second lot's **closing time** is therefore **extended** sufficiently long that it in turn is too close to the scheduled closing time of a third lot, the third lot's **closing time** is in turn **extended** to be at least the minimum interval beyond the second lot's **closing time**.

Flexible market **closing extensions** is implemented in the **auction** system by storing a parameter in storage 22B that specifies the minimum interval between lot... ..into memory 22A for use by the server component of the application software when an **Auction** is loaded. When the closing time for a given lot is adjusted, the closing time... ..closing extensions feature is illustrated in the flow chart of Fig. 11. The process for **dynamically extending the closing time** of multiple lots is shown as process 500. The **Auction** continually receives bids at step 510 until a predetermined interval of time before the scheduled... ..closing time of the next lot is greater than or equal to the minimum lot **closing interval**, then no **extensions** are necessary, and the process returns to step 510, where bids for the current lot... ..current lot are again received at step 510.

Flexible Overtime

As described above, the prior **auction** system employed a simple, static model for Overtime, in which Overtime was triggered by a new low bid submitted within a predetermined time interval before a scheduled **closing** time, and the scheduled **closing time** was **extended** by a predetermined **time** period. This rule can be articulated as: "a market-setting low bid, received in the... ..increment (DELTA)t to the scheduled closing time." This Overtime rule was applied to all **Auctions**, to all lots in an **Auction**, at all times during an **Auction**. The flexible overtime feature of the present **auction** system addresses the shortcomings of the prior static overtime feature.

Flexible overtime has two aspects... ..triggers. The variable duration aspect involves overtime extension intervals (time intervals by which a scheduled **closing** time, whether an initially-scheduled **time** or an **extended time**, is **extended**) and overtime trigger **intervals** (intervals before a scheduled **closing** time in which a bid meeting defined criteria will trigger overtime). These intervals can be... ..submitted within the appropriate interval was lower than the current best bid. In the disclosed **auction** system, overtime triggers can be based on other parameters and criteria. For example, the rank... ..include the option to vary the overtime extension interval dynamically during the course of the **Auction**.

It should be noted that an overtime trigger can also be based upon evaluations of... ..group or particular supplier). As a general rule, the overtime trigger seeks to extend the **auction** for a lot if there is any indication that further **bidding** would somehow be advantageous to the buyer.

Flexible overtime can be implemented in the illustrated **auction** system in a variety of ways. In one embodiment, a parameter is stored in storage... ..into memory 22A for use by the server component of the application software when an **Auction** is loaded. When overtime is triggered on a given lot, the server component adds the... ..step 610 to receive the next bid.

Flexible Bidder-Determined Line Item Decision Rules

This **bidding** feature of the **auction** system of the invention provides a method for allowing bidders to bid at the lot... ..flexible line-item decision rule enables a buyer to automatically adjust aspects of line item **level bids** based upon one or more inputs at the lot or line item level.

In one...remains unchanged. However, limits can be locked and unlocked dynamically during the course of an **Auction** by the bidder

This particular flexible line-item decision rule allows bidders to lock in... ..setting floors or ceilings on all or part of individual line item bids. During the **Auction**, fixed components can be re-evaluated and unlocked if necessary in response to movement in... ..the line item bids. Items can be locked or unlocked at any time during the **bidding** event.

An example of the Lock/Unlock feature is shown below. Initially, line item 1... ..item adjustments is reflected by the following:

The locked / unlocked feature is implemented in the **auction** system by data structures maintained in the client software that support capture of locked and... ..item level. These flexible line-item decision rule can be created to

accommodate any pre-**auction bidding** strategy that could be jeopardized by the bidder's interaction in a real-time **auction** event. For example, a customized flexible line-item decision rule can be created such that... ..either the lot or line item level.

Pending Status

The pending status feature of the **auction** system of the invention provides an intermediate **bidding** status for each lot to transition the lot from a status in which bids can... ..Extended) to a status in which bids will no longer be accepted (Closed). The intermediate **bidding** status is "Pending." This status indicates that bids are not being accepted on the lot but that the lot may subsequently be returned to Open status for **bidding**. This allows a time period for a bidder who has missed an opportunity to bid... ..can then evaluate the asserted fault and determine whether it is appropriate to allow further **bidding** on the lot. If so, the lot can be returned to Open status for **bidding**. If not, the lot is Closed. The lot can be returned to Open status immediately... ..a convenient time to re-open is scheduled.

Pending status is implemented in the illustrated **auction** system by storing two parameters in storage 22B: one parameter that specifies the length of... ..into memory 22A for use by the server component of the application software when an **Auction** is loaded. When the scheduled closing time for a lot is reached, the

bidding status is set to "Pending" instead of "Closed." If the automatic close flag is set...bidder calling the coordinator during the Pending period to communicate problems that occurred during the **bidding** for that lot. If this happens, the coordinator manually changes Auto(underscore)close to NO... ..Auto(underscore)close flag or the Status. If after investigation, it turns out that the **bidding** does not need to be returned to open status, then the coordinator can change the... ..to step 770, and closing the lot. If after investigation it is decided that the **bidding** should be reopened for that lot, the coordinator can manually change the status to OPEN... ..time for this lot will be adjusted to a new scheduled closing time, and the **Auction** will start receiving bids again for that lot at step 710. The entire process 700 is repeated.

Bidding Statuses

The possible **bidding** statuses for the present **auction** system and method are identified in Fig. 10. In addition to the statuses identified in Fig. 5 for the prior **auction** system, the present system includes the statuses of Extended and Pending. As shown in Fig... ..to Pendi status. Further, a lot can change from Pending to Open or Closed status.

Auction Pause

Auction Pause allows the **auction** coordinator to indefinitely "freeze" an **auction**, without disrupting the bids placed before the pause went into effect. The pause status can be applied to an entire **auction** (all lots) or to specific lots within an **auction**. The Pause status can be applied at any time during an **auction** and will override any other status currently in effect. While in Pause status, all existing bids are preserved. An entire **auction** (or individual **auction** lots) can be held in Pause status for an indefinite period of time. In one embodiment, no bidder is able to submit bids while the **auction** is in Pause status. In an alternate embodiment, bids may continue to be received but would not be entered into the **auction**. In this embodiment, bids could be held in a queue awaiting entry upon the removal of the Pause status.

The **auction** coordinator determines the lot status that applies once the pause is removed. While in Pause status, the **auction** server clock will continue to operate. Hence, without any intervention by the **auction** coordinator, the lot status that applies once the pause is removed will be the lot... ..if the scheduled lot closing time passes while the lot is in pause, and the **auction** coordinator lifts the pause status, the **auction** lot will return to "Closed" status. However, the **auction** coordinator can alter the scheduled timing that applies to all lots (i.e. alter the... ..the correct lot status

applies once the pause is removed. Thus, all bidders see the **auction** server clock match the correct time while the **auction** coordinator can achieve any relevant lot status once the pause is removed.

For example, as shown below in Table 1, an online **auction** is scheduled to open at 9:00 am at which time all lots will open... ..in Available status.

Suppose there is a technical disruption at 8:50 AM and the **auction** coordinator is not sure how long it will take to resolve the issue. Instead of canceling the **auction**, the **auction** coordinator places the entire **auction** in Pause status. The **auction** now appears as shown in Table 2.

The technical disruption is resolved at 9:32 AM. At this point, if the **auction** coordinator lifted the Pause status, Lot 1 would immediately go to Pending and then to... ..interval has been set to a total of 5 minutes after scheduled close by the **auction** coordinator.) Bidders would therefore not have an opportunity to place bids for Lot 1. To avoid this outcome, the **auction** coordinator decides to alter the opening times for all lots to 9:45 AM and... ..this has the effect of returning all lots to Available status, and bidders can commence **bidding** when the lots open at 9:45 AM. The **auction** now appears as shown in Table 3. Note that the **auction** coordinator could also have shifted the closing times only. In that case, all lots would have gone to Open status and bidders could have commenced **bidding** immediately.

Bidding begins on all of the lots at 9:45 AM. Then a second technical disruption... ..placed on Lots 2 and 3. As the duration of the interruption is unknown, the **auction** coordinator decides to once again place all lots in Pause status until the technical difficulty... ..to await the lifting of the Pause status, but all existing bids are preserved. The **auction** now appears as shown in Table 4.

The technical disruption is resolved at 10:30 AM. The **auction** coordinator alters the closing times (but not the opening times) of the lots to give... ..space out the closing times of Lots 2 and 3 at 20 minute intervals. The **auction** coordinator does not change the opening times of the lots, and therefore preserves bids that have already been made. All lots return to Open status when the **Auction** Pause is lifted and may commence **bidding** immediately. The **auction** now appears as shown in Table 5.

Bidding continues on Lot 1 until 10:55 before the final bid is placed and the... ..2 into Extended status moving the scheduled closing time back to 11:05 AM. The **auction** now appears as shown in Table 6.

Now it is discovered that some, but not... ..the bidders on Lot 2 have made an incorrect assumption in preparing their quotes. The **auction** coordinator needs time to communicate with all bidders and correct the error, and estimates that... ..closes. However, there is no disruption to Lot 3, which can continue as scheduled. The **auction** coordinator places Lot 2 in the Pause status, and changes the scheduled closing time for Lot 2 to 11:40 AM. No change is made to Lot 3. **Bidding** continues on Lot 3, but no bids can be placed on Lot 2 at this point. Lot 2 is now scheduled to close after Lot 3. The **auction** now appears as in Table 7.

By 11:17, all of the bidders have received... ..will ensure that bidders have adequate time to return to Lot 2 once Lot 3 **bidding** ends. The **auction** now appears as shown in Table 8.

The lot statuses will now follow their normal procedures through to the end of the **auction**.

Bidder-Specific Bid Limitations

It is common for sellers (upward **auctions**) and buyers (downward **auctions**) to place market limitations on the amounts that bidders may submit as valid bids during the course of an online **auction**. For example, a buyer may require that **bidding** start below a certain ceiling. In this case, the buyer is not interested in making... ..obtain some form of price discovery with respect to individual bidders prior to the online **auction**. For example, it is not uncommon in industrial procurement for the buyer to receive bids from potential suppliers prior to an online **auction**. The buyer may have solicited a "first round" of bids ("pre-bids") prior to deciding to conduct the online

auction, or a series of bids may arrive without solicitation from the buyer. At this point, the buyer has three options for conducting the online **auction**:

A first option is to set a ceiling at the highest pre-bid. In this case, suppliers who submitted lower pre-bids prior to the online **auction** may commence **bidding** at a level higher than their pre-bids. During the course of the event, the **bidding** activity may not reach the level of the lowest pre-bid. This could occur for... ..the market approaches the value of their pre-bids. This is a situation unique to **auctions** in industrial markets where the buyer can award to a non-low **bidding** supplier (switching costs and non-price variables establish "stickiness" in **bidding** behavior). Without the leaders **bidding** at all, there may not be enough competition to drive the online **auction** to its potential. Possibly, no new bids will be received online at all. The buyer in this case has lost the potential for the interactivity of the **auction** to produce a better result.

Second, if the rules of the online **auction** require the buyer to forego the pre-bids (for example, to avoid the problem described... ..then the leaders can start much higher than their pre-bids. In fact, the low **bidding** pre-bidder only needs ...a ceiling at the lowest bid. In this case, some suppliers may be prevented from **bidding** because they cannot meet the ceiling. This does not matter if the buyer is indifferent... ..buyer awards to the lowest bidder either at the ceiling or the market price if **bidding** goes below the ceiling). However, in industrial business-to-business **auctions** it is not uncommon for the buyer to choose a non-low **bidding** supplier (switching costs and non-price variables affect the final decision). Many suppliers who did not have the lowest bid prior to the online **auction** may want to reduce their bid to close the gap on the lowest placed bidder... ..but they may be able to improve their position. However, the ceiling in the online **auction** prevents them from **bidding** at all. Thus, the buyer loses the benefit of receiving the lowest bid possible from... ..that this is a problem unique to industrial business-to-business markets. In most other **auction** situations, the market-leading bid automatically wins, and setting the ceiling at the lowest bid... ..limitations feature addresses the shortcomings of market-wide bid ceilings. With this feature, an online **auction** can set up such that individual bidders have different limits on the bids that will be accepted during the course of the **auction**. For an upward **auction**, the seller may set different floor prices for different bidders. For a downward **auction**, individual ceiling prices can be established for bidders. This avoids the "buyer's (or seller... ..lower their price any further through manual negotiation. The buyer decided to hold an online **auction** but wanted to ensure that suppliers would not start **bidding** higher than their pre-bids. Since the bids were received in confidence (as is often... ..enter opening bids equal to their previous best "on behalf of the suppliers.

An online **auction** is then conducted on the basis that the pre-bids would be foregone, and only a supplier who participated in the online

auction would be awarded the business. Accordingly, all suppliers would have to re-bid to win... ..individual bid ceilings are not visible to the other suppliers. The result of the online **auction** with bidder-specific bid limitations is also shown in Table 9.

As illustrated, all suppliers lowered their bids as a result of the online **auction**. Note that suppliers C and D did not drop their bids to meet the lowest... ..outcome shown in Table 10 below.

In this example, as a result of the online **auction**, Suppliers B, C and D lowered their bids to the "walk-away prices" assumed above... ..to the bid placed offline. If they did not bid at all, according to the **auction** rules they would have been ineligible for an award.

Consider the potential outcomes in the...each reach their walk-away price. Once they reach their walk-away price they stop **bidding**. When the lowest bid reaches Supplier B's walk-away price (\$8,874,012), all... ..just below Supplier B to reach first place. With no response from Supplier B, the **auction** closes. The buyer has lost the potential to extract an additional \$348,065 from Supplier... ..market closes with no activity and the buyer loses all potential gains from an interactive **auction** (Table 10).

In the best possible situation, Supplier A does not realize they have the... go below B's offline bid. At this point B is drawn into the competition. **Bidding** will likely continue until B and C reach their walk-away prices. At this point... away prices above B's offline bid, then C, D, and A would have stopped **bidding** before B was drawn into the competition. In which case, the result could have been considerably worse. The point here is that using an online **auction** can be risky for the buyer in some situations, due to the potential to share... It is not uncommon for a bidder to make errors when placing bids during an **auction**. The prior system prevented some of these errors through the use of a confirmation pop... that this information is correct prior to sending the bid across the network to the **auction** server. The bidder must either confirm the bid by clicking on the "confirm" button or... result in no bid being entered. Once a bid is confirmed and sent to the **auction** server, it is entered into the online **auction** and market information from that bid is displayed to all bidders.

However, the confirmation pop... entered erroneous bids even though they had to confirm the bids. The pace of the **auction**, and **bidding** on multiple lots simultaneously allows for bidder errors. Because erroneous bids affect the critical integrity of the **auctions**, additional error detection and prevention features were developed using system-based intelligence.

One additional layer of protection is through failsafe functionality. Failsafe rules allow the **auction** coordinator to limit the bidders' ability to enter certain bids. The consequences for breaking these... and flexibly predefine consequences if that criteria is met, all in relation to specific online **auctions** and different lots within an **auction**.

In one embodiment, the failsafe rules are implemented by the server component. In an alternate... by the client component.

Another error prevention feature is the override function. Override allows the **auction** coordinator to override or remove erroneous bids from the **auction** in real-time. A bid can be quickly and efficiently removed before it prejudices the... in response to an erroneous bid, all consequential bids can be removed as well. Accordingly, **auctions** can be completed by picking up from the point of the last valid bid, rather than starting over.

If a bid is overridden, the **auction** coordinator warns the bidders that an erroneous bid has been received and removed through a... is sent to every bidder and appears as a warning on their user interface. The **auction** coordinator types in a text message and send it to each bidder over the same network that is running the **auction**. Message boxes appear on **bidding** screens and bidders must click "OK" before they can continue to bid.

As an example... D, & E are engaged in a competitive interaction on Lot 1 of a multi-lot **auction** between 1:25 PM and 1:27:30 PM at a price between \$1.5... at 1:40 PM, as shown in Table 13.

Prior to the opening of the **auction**, the **auction** coordinator activated three failsafe rules. First, once a bidder has placed an initial bid, they... bid more than 70% below historic price will be accepted at any point throughout the **auction**.

Supplier F decides to commence **bidding** on Lot 1. On their opening bid, Supplier F omits a zero from the bid... activated and the bid is entered.

Supplier F immediately recognizes the mistake and contacts the **auction** coordinator. After confirming that this is a bona fide error, the **auction** coordinator warns the other participants that the latest bid from Supplier F is erroneous and activates the override feature. The bid is removed from the online **auction**.

Bidding continues on this lot without a disruption in the **auction** process, and without prejudicing the position of the other bidders.

The operation of the error... shown in Fig. 15C. If the bidder reconfirms the bid, then is entered into the **auction** at step 860. If the bid passed the reconfirmation failsafe criteria at step 850, then no reconfirmation is needed, and the bid is entered into the **auction** at step 860. The entire process 800 is repeated for every bid that is submitted in the **auction**.

While the invention has been described in detail and with reference to specific embodiments thereof... from the spirit and scope thereof. In particular, it should be noted that while the **auction** functions described above have been described in the context of downward pricing **auctions** the **auction** functions can be equally applied to upward pricing **auctions**. Thus, it is intended that the present invention cover the modifications and variations of this...

Claims: ...A2

1. A method of controlling a status display of an electronic **auction** system in response to a technical disruption, comprising:

(a) setting a lot having at least... 2, wherein step (g) comprises the step of setting and displaying said first status after **auctions** on other lots have closed.

4. The method of one of claims 1 to 3... of said time interval.

9. A method of controlling a status display of an electronic **auction** system in response to a technical disruption, comprising

(a) setting a lot having at least... claim 11, wherein said stored bids are preserved in a queue for entering into the **auction** at a later time.

13. The method of claim 9, wherein said lot is one... one of claims 9 to 15, wherein step (e) comprises the step of changing said **bidding** status from an open status to a paused status.

17. The method of one of claims 9 to 15, wherein step (e) comprises the step of changing said **bidding** status from an extended status to a paused status.

18. The method of one of claim 9 to 15, wherein step (e) comprises the step of changing said **bidding** status from an overtime status to a ...one of claims 9 to 15, wherein step (e) comprises the step of changing said **bidding** status from an available status to a paused status.

20. The method of one of claims 9 to 19, wherein step (f) comprises the step of receiving input from an **auction** coordinator that identifies an alteration in said closing time.

21. The method of one of... one of claims 9 to 21, wherein step (g) comprises the step of changing said **bidding** status from a paused status to an available status.

23. The method of one of claims 9 to 21, wherein step (g) comprises the step of changing said **bidding** status from a paused status to an open status.

24. The method of one of claims 9 to 21, wherein step (g) comprises the step of changing said **bidding** status from a paused status to an extended status.

25. A computer program product for... product according to claim 25 stored on a computer readable recording medium.

27. An electronic **auction** system in the form of a computer network, comprising:

(a) a memory for storing a... means displays said first status and a new closing time is set.

28. The electronic **auction** system of claim 27, wherein in said memory (22A) a parameter specifying whether said lot should automatically close when said time interval expires is stored.

29. An electronic **auction** system in the form of a computer network, comprising:

(a) a memory for storing a...

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EUROPEAN PATENTS

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Abstract ...more line items, providing a user interface for setting adjustment rules at a line item **level** for line item **bids**, inputting an adjusted **bid** at a lot **level** and, in **response** to the input of said adjusted **bid** at said lot **level**, automatically calculating adjusted **bids** at said line item level in real time in accordance with said adjustment rules. The...

Type	Pub. Date	Kind	Text
Available Text	Language	Update	Word Count
Total Word Count (Document A)			
Total Word Count (Document B)			
Total Word Count (All Documents)			

Specification: ...aggregate value bid for a lot depends upon the level and mix of line item **bids** and the **quantity** for each line item. Therefore, bidders submit bids at the line item level, but compete...within one minute of closing, was not a new low bid and therefore did not **extend** the closing **time** for Lot 1. Lot 1 therefore closed at 10:32, with a Market Bid of \$371,373, as shown in Fig. 6D (which shows the status of the **Auction** at 10:32:05). **Bidding Dynamics**

Suppliers prepare their price quotes in light of a number of factors. These factors... ..that are not predictable during the preparation of quotations but that are evident during the **auction** can also ...important in determining, for example, how aggressively other participants may bid.

Because business-to-business **auctions** are conducted for important custom components, low bidders may still be "passed over" if other bidders demonstrate non-price advantages.

Sometimes **auctions** involve parts that this purchaser has procured before, and are possibly being made currently by... ..being made by a supplier, that supplier would be termed the "incumbent supplier." In an **auction** situation, the incumbent supplier is placed in a position of having to defend its contract... ..their incumbent status.

Certain human factors must also be considered when conducting business-to-business **auctions** for industrial purchasing. If not considered, these human factors can interfere with achieving desired outcomes. Bidders must be comfortable with the **auction** software. Bidders often speak English as a second language, or not at all, making it... ..situations where losing the contract in question literally means losing their business.

Problems with Prior **Auction** Process

The prior **auction** process described above has been found to produce suboptimal results for buyers in light of... ..include: a) multiple lot closing time collisions; b) premature lot closings; c) difficult and inflexible **bidding** constraints due to lot/line item structure; d) possible prejudice to bidders resulting from technical... ..same time. By spacing the closing times for each lot, a supplier knows that while **bidding** on one lot, the next lot in the **Auction** will not close. This staggered closing is one way to work around cognitive limits - each... ..scheduled closing time of

a subsequent lot. This situation begins to tax cognitive limits, and **bidding** opportunities on the subsequent lots are often missed. Although this problem might be resolved by... ..experience has shown that even this approach would not be sufficient. For example, in one **Auction** with 2 lots scheduled with 20 minutes between closing times, actual **bidding** on the first lot continued for 5 hours and 31 minutes after scheduled close.

The second problem is premature closing of **bidding** on lots. Just as in an in-person **auction**, **bidding** activity tends to increase close to the scheduled closing time. Like the "going, going, gone" **auction** concept, it is possible to achieve a better **auction** price if the **auction** is allowed to continue if bids are still being made. As described above, this concept... ..of a specific lot is automatically extended based on the flow of bids into the **Auction**. Overtime prevents bidders from hanging back and submitting last minute bids in an attempt to... ..incumbent supplier might be expected to do, would not trigger an overtime. Unlike in-person **auctions**, industrial **auctions** need to allow second place bids. Thus, it has been found that this is an overly simplistic model, which may still be cutting off **bidding** too soon. A low bidder needs a chance to react to a second place bid... ..fixed offsets between lot closing times, with fixed trigger time frames (the period before scheduled **closing** or current Overtime **ending**), and fixed **extension periods** for Overtime. In industrial markets, **bidding** events involve commodities of varying complexity and component packages of different sizes. Accordingly, bidders may... ..respond to a bid. The amount of overtime may need to be customized for specific **bidding** events or for individual lots within an **Auction** to obtain the optimal market dynamic. It is therefore desirable to provide more flexibility in... ..system is that bids needed to be made at the line item level. However, the **auction** takes place at the lot level, where all of the line item quotes are added... ..this lot may be comprised of hundreds of individual items or cost elements. Initial online **auctions** only allowed line item price adjustments, and it was difficult to fine-tune the mix... ..total lot price bids. This was frequently too time-consuming to keep pace with the **auction**.

With the time constraints on **bidding**, bidders wanted the ability to be able to rapidly adjust the lot price without specifically... ..to be applied selectively instead of universally.

Another problem that can arise either in regular **bidding** or in Overtime is addressing technical disruptions. Real-time technical or operational disruptions in the communications network, software or hardware during the course of a **bidding** event may prevent a bidder from fully participating. Disruptions may arise in the online network... ..the equipment used by an individual bidder.

In addition, market events or imperfections may disrupt **bidding** activity and require communication with bidders before the **auction** can continue. For example, in one **auction bidding** for an **auction** lot commenced and it became clear that some of the bidders were including tooling costs... ..this example, the bidders needed to be contacted and informed of the correction before the **auction** could proceed with all bidders on an equal footing.

Other external factors may disrupt the operation of the **auction** or participation by bidders. In another example, a snow storm prevented many bidders from getting to work on time for the opening of the **auction**. This was not discovered until many bidders failed to commence **bidding**.

With a business-to-business transaction, it is typically commercially unacceptable for any bidder to be denied full participation. However, where disruptions arise in the course of a **bidding** event, the **bidding** activity and positions of other bidders cannot be prejudiced. Accordingly, market closing times may need... ..whether it will be possible to resolve all problems prior to the close of an **auction** lot.

Another problem that occurred in the previous system was the submission of erroneous bids. **Bidding** errors can happen due to the nature of the online **auction**. The pace or intensity of the **bidding** activity can exceed cognitive limits of bidders. In an effort to keep up, bidders enter incorrect quote amounts. Bidders are frequently interested in **bidding** on multiple lots. In the course of monitoring or switching between lots, the bidder erroneously... ..that would be incurred by honoring an erroneous bid is substantial.

In an online industrial **auction**, an incorrect bid can upset the **bidding** behavior of other bidders creating inequity for all participants in the market. All bidders in... ..in error, and the other bidders proceed to bid in response, the integrity of the **auction** is damaged. This can result in suboptimal results for both buyers and suppliers.

Summary of the Invention

The problems encountered with the operation of the prior **auction** system are overcome by the **auction** system of the invention, which enables flexible dynamic alterations of market closing times, line item decision rules, **auction** pause, bidder-specific bid limits, and the ability to detect and prevent erroneous bids.

The... ..be adjusted to suit the complexity and size of the market lots involved in the **bidding** event. This permits bidders to have more overtime to respond to each new bid if... ..trigger for additional overtime can be flexibly set to include a range of behind-market **bidding** activity. The type of behind-market activity that would trigger additional overtime includes bids or... ..is triggered when certain bids upset the market dynamic.

In multi-market, or multi-lot **bidding** events, where prior market lots run into overtime, the closing times of subsequent market lots... ..the position of having to bid for different market lots at the same time.

Once **bidding** activity has ceased, a lot is placed into "Pending" status prior to closing the lot... ..technical disruption a lot can be returned to "Open" status for all participants to allow **bidding** activity to continue. Pending status will then be used again to dynamically alter lot closing... ..irrespective of any technical disruptions that occur during the event without prejudicing the positions and **bidding** activity of other bidders.

"Pause" status ensures that disruptions to an **auction** can be dealt with equitably without prejudicing existing **bidding** activity or positions achieved by bidders. **Auction** Pause allows the **auction** coordinator to indefinitely "freeze" an **auction** without disrupting the bids placed before the pause went into effect. The Pause status can be applied to an entire **auction** (all lots) or to specific lots within an **auction**. The Pause status can be applied at any time during an **auction** and will override any other status currently in effect. In one embodiment, no bidder is able to submit bids while the **auction** is in Pause status. In an alternate embodiment, bids may continue to be received but would not be entered into the **auction**. In this embodiment, bids could be held in a queue awaiting entry upon the removal of the Pause status.

Flexible bidder-determined line item decision rules for **bidding** permits bidders to set specific price decision rules for aspects of individual line items within... ..items within a lot. Decision rules can be set dynamically during the course of the **bidding** event by the bidder.

Flexible line-item decision rules enable bidders to lock-in a... ..the comfort of setting floors or ceilings on individual or cost component bids. During the

bidding event, fixed components can be reevaluated and unlocked if necessary in response to movements in the market beyond original expectations. This **bidding** flexibility allows bidders to participate in the **auction** fully, and increases competition.

Bidder-specific bid rules enable an **auction** coordinator to maximize the competitive nature of an **auction**. In a downward **auction**, each bidder is assigned an individual bid ceiling by the buyer. This bid ceiling sets... ..bid ceilings are advantageous to the buyer because it prevents a bidder from withholding pre-**auction** bids from the market.

The ability to detect, prevent and remove erroneous bids ensures that erroneous bids can be dealt with equitably without prejudicing other bidders or interrupting the **auction**. A confirmation box is presented to the bidder to confirm the amount of a bid... ..entered. All bids must be checked and confirmed before they will be submitted to the **auction** server. Predefined "failsafe" rules allow the bidder to limit bids to a certain range. If during the course of

an **auction**, the bidder bids outside that range, additional bid confirmations may be required, or the bidder may be prevented entirely from entering bids that fail "failsafe" criteria. The **auction** coordinator may override or remove erroneous bids from the **auction** in real-time. Bids can be quickly and efficiently removed before it prejudices the positions... 2 is a schematic illustration of the tasks performed by the entities involved in an **auction** process.

Fig. 3 is a schematic illustration of the communications links between the coordinator and the potential suppliers in an **Auction**.

Fig. 4 is a schematic illustration of the client and server components of the computer software application that conducts the **Auction** and the hardware at the sites of the coordinator and the potential suppliers on which the client and server components operate.

Fig. 5 is a schematic illustration of the possible **bidding** states in the prior **auction** system.

Figs. 6A - 6D illustrate the information displayed by the client application in the prior **auction** system at various times during a sample **Auction**.

Figs. 7A - 7B illustrate the change in **bidding** status of one lot in the **Auction** illustrated in Figs. 6A - 6D.

Fig. 8 illustrates a series of bids submitted on one of the lots during the **Auction** illustrated in Figs 6A - 6D.

Figs. 9A - 9B illustrate the changes in **bidding** status and closing times for multiple lots using the **dynamic** lot **closing extension** feature.

Fig. 10 is a schematic illustration of the possible **bidding** states in the **auction** system.

Fig. 11 is a flow chart illustrating the operation of the **dynamic** lot **closing extension** feature.

Fig. 12 is a flow chart illustrating the operation of the flexible overtime feature... detection features.

Figs. 15A-15C illustrate error detection warning and confirmation messages.

Detailed Description

The **auction** method and system of the invention are described below. Seven aspects of the system and method are described: a) **dynamic** lot **closing extension**; b) flexible overtime; c) flexible bidder-determined line item decision rules; d) pending status; e) bidder-specific bid limits; f) **auction** pause; and g) error detection and prevention.

Dynamic Lot Closing Extension

The problem identified above of multiple lot closing collisions is addressed with the **dynamic** lot **closing extension** feature. This feature involves rescheduling, or **extending**, the **closing time** of a subsequent lot when the closing time of a preceding lot is extended to... line divided into time intervals of $(\Delta)t$ between times t_1 , t_2 , etc. The scheduled **bidding** periods for two lots in the **Auction** are times t_1 (the opening time for the **Auction**) through t_6 (the initially scheduled closing time) for Lot X, and time $t_1 - t_1$ I... times t_6 and t_1 are staggered to permit potential suppliers to focus their attention on **bidding** on a prior lot (Lot X) before it closes, then to turn their attention to **bidding** on a subsequent lot (Lot Y) with adequate time before it closes. The time interval... increments $(\Delta)t$.

Fig. 9B shows the changes of status of various parameters in the **auction** as bids are received. Fig. 9B identifies the time interval during which the bid is received, the **bidding** status of Lot X before and after the bid is received, the **bidding** status of Lot Y before and after the bid is received, the closing time of... and the closing time of Lot Y before and after the bid is received.

The **Auction** begins at time t_1 . At the beginning of the **Auction**, and during the initial course of **bidding**, both lots have a **bidding** status "Open." During the course of **bidding**, a bid submitted on Lot X can trigger an extension of Lot X's closing... of time before the closing time). Thus, bids A and B do not change the **bidding** status of Lot X or the closing times of the lots, because they are not... triggers "Overtime" for Lot X. This is reflected in Fig. 9B,

which indicates that the **bidding** status of Lot X was "Open" before the bid and "Overtime" after the bid. The scheduled **closing** time for Lot X is **extended** by an Overtime **interval** (defined in this example to be one interval (DELTA)t from t6 to t7. Since... ..Overtime," but because it was received within one increment (DELTA)t of the then-scheduled **closing** time t7, the scheduled **closing time** is further **extended** by one increment (DELTA)t to t8. Again, there are still at least three intervals... ..effect on the closing time of Lot Y.

When Bid E is received, both the **bidding** status and the closing time of Lot X are unaffected, because the bid is received... ..t's, Bid F triggers Lot Y to change status from Open to Extended, and **extends** the **closing time** for Lot Y to t12.

The Extended status can be applied to more than one... ..lot's closing time to less than the minimum interval, and the second lot's **closing time** is therefore **extended** sufficiently long that it in turn is too close to the scheduled closing time of a third lot, the third lot's **closing time** is in turn **extended** to be at least the minimum interval beyond the second lot's **closing time**.

Flexible market **closing extensions** is implemented in the **auction** system by storing a parameter in storage 22B that specifies the minimum interval between lot... ..into memory 22A for use by the server component of the application software when an **Auction** is loaded. When the closing time for a given lot is adjusted, the closing time... ..closing extensions feature is illustrated in the flow chart of Fig. 11. The process for **dynamically extending the closing time** of multiple lots is shown as process 500. The **Auction** continually receives bids at step 510 until a predetermined interval of time before the scheduled... ..closing time of the next lot is greater than or equal to the minimum lot **closing interval**, then no **extensions** are necessary, and the process returns to step 510, where bids for the current lot... ..current lot are again received at step 510.

Flexible Overtime

As described above, the prior **auction** system employed a simple, static model for Overtime, in which Overtime was triggered by a new low bid submitted within a predetermined time interval before a scheduled **closing** time, and the scheduled **closing time** was **extended** by a predetermined **time** period. This rule can be articulated as: "a market-setting low bid, received in the... ..increment (DELTA)t to the scheduled closing time." This Overtime rule was applied to all **Auctions**, to all lots in an **Auction**, at all times during an **Auction**. The flexible overtime feature of the present **auction** system addresses the shortcomings of the prior static overtime feature.

Flexible overtime has two aspects... ..triggers. The variable duration aspect involves overtime extension intervals (time intervals by which a scheduled **closing** time, whether an initially-scheduled **time** or an **extended time**, is **extended**) and overtime trigger **intervals** (intervals before a scheduled **closing** time in which a bid meeting defined criteria will trigger overtime). These intervals can be... ..submitted within the appropriate interval was lower than the current best bid. In the disclosed **auction** system, overtime triggers can be based on other parameters and criteria. For example, the rank... ..include the option to vary the overtime extension interval dynamically during the course of the **Auction**.

It should be noted that an overtime trigger can also be based upon evaluations of... ..group or particular supplier). As a general rule, the overtime trigger seeks to extend the **auction** for a lot if there is any indication that further **bidding** would somehow be advantageous to the buyer.

Flexible overtime can be implemented in the illustrated **auction** system in a variety of ways. In one embodiment, a parameter is stored in storage... ..into memory 22A for use by the server component of the application software when an **Auction** is loaded. When overtime is triggered on a given lot, the server component adds the... ..step 610 to receive the next bid.

Flexible Bidder-Determined Line Item Decision Rules

This **bidding** feature of the **auction** system of the invention provides a method for allowing bidders to bid at the lot... ..flexible line-item decision rule enables a buyer to automatically adjust aspects of line item **level bids** based upon one or more inputs at the lot or line item level.

In one...remains unchanged. However, limits can be locked and unlocked dynamically during the course of an **Auction** by the bidder

This particular flexible line-item decision rule allows bidders to lock in... ..setting floors or ceilings on all or part of individual line item bids. During the **Auction**, fixed components can be re-evaluated and unlocked if necessary in response to movement in... ..the line item bids. Items can be locked or unlocked at any time during the **bidding** event.

An example of the Lock/Unlock feature is shown below. Initially, line item 1... ..item adjustments is reflected by the following:

The locked / unlocked feature is implemented in the **auction** system by data structures maintained in the client software that support capture of locked and... ..item level. These flexible line-item decision rule can be created to accommodate any pre-**auction bidding** strategy that could be jeopardized by the bidder's interaction in a real-time **auction** event. For example, a customized flexible line-item decision rule can be created such that... ..either the lot or line item level.

Pending Status

The pending status feature of the **auction** system of the invention provides an intermediate **bidding** status for each lot to transition the lot from a status in which bids can... ..Extended) to a status in which bids will no longer be accepted (Closed). The intermediate **bidding** status is "Pending." This status indicates that bids are not being accepted on the lot but that the lot may subsequently be returned to Open status for **bidding**. This allows a time period for a bidder who has missed an opportunity to bid... ..can then evaluate the asserted fault and determine whether it is appropriate to allow further **bidding** on the lot. If so, the lot can be returned to Open status for **bidding**. If not, the lot is Closed. The lot can be returned to Open status immediately... ..a convenient time to re-open is scheduled.

Pending status is implemented in the illustrated **auction** system by storing two parameters in storage 22B: one parameter that specifies the length of... ..into memory 22A for use by the server component of the application software when an **Auction** is loaded. When the scheduled closing time for a lot is reached, the **bidding** status is set to "Pending" instead of "Closed." If the automatic close flag is set...bidder calling the coordinator during the Pending period to communicate problems that occurred during the **bidding** for that lot. If this happens, the coordinator manually changes Auto(underscore)close to NO... ..Auto(underscore)close flag or the Status. If after investigation, it turns out that the **bidding** does not need to be returned to open status, then the coordinator can change the... ..to step 770, and closing the lot. If after investigation it is decided that the **bidding** should be reopened for that lot, the coordinator can manually change the status to OPEN... ..time for this lot will be adjusted to a new scheduled closing time, and the **Auction** will start receiving bids again for that lot at step 710. The entire process 700 is repeated.

Bidding Statuses

The possible **bidding** statuses for the present **auction** system and method are identified in Fig. 10. In addition to the statuses identified in Fig. 5 for the prior **auction** system, the present system includes the statuses of Extended and Pending. As shown in Fig... ..to Pending status. Further, a lot can change from Pending to Open or Closed status.

Auction Pause

Auction Pause allows the **auction** coordinator to indefinitely "freeze" an **auction**, without disrupting the bids placed before the pause went into effect. The pause status can be applied to an entire **auction** (all lots) or to specific lots within an **auction**. The Pause status can be applied at any time during an **auction** and will override any other status currently in effect. While in Pause status, all existing bids are preserved. An entire **auction** (or individual **auction** lots) can be held in Pause status for an indefinite period of time. In one embodiment, no bidder is able to submit bids while the **auction** is in Pause status. In an alternate embodiment, bids may continue to be received but would not be entered into the **auction**. In this embodiment, bids could be held in a queue awaiting entry upon the removal of the Pause status.

The **auction** coordinator determines the lot status that applies once the pause is removed. While in Pause status, the **auction** server clock will continue to operate. Hence, without any intervention by the **auction** coordinator, the lot status that applies once the pause is removed will be the lot... ..if the scheduled lot closing time passes while the lot is in pause, and the **auction** coordinator lifts the pause status, the **auction** lot will return to "Closed" status. However, the **auction** coordinator can alter the scheduled timing that applies to all lots (i.e. alter the... ..the correct lot status applies once the pause is removed. Thus, all bidders see the **auction** server clock match the correct time while the **auction** coordinator can achieve any relevant lot status once the pause is removed.

For example, as shown below in Table 1, an online **auction** is scheduled to open at 9:00 am at which time all lots will open... ..in Available status.

Suppose there is a technical disruption at 8:50 AM and the **auction** coordinator is not sure how long it will take to resolve the issue. Instead of canceling the **auction**, the **auction** coordinator places the entire **auction** in Pause status. The **auction** now appears as shown in Table 2.

The technical disruption is resolved at 9:32 AM. At this point, if the **auction** coordinator lifted the Pause status, Lot 1 would immediately go to Pending and then to... ..interval has been set to a total of 5 minutes after scheduled close by the **auction** coordinator.) Bidders would therefore not have an opportunity to place bids for Lot 1. To avoid this outcome, the **auction** coordinator decides to alter the opening times for all lots to 9:45 AM and... ..this has the effect of returning all lots to Available status, and bidders can commence **bidding** when the lots open at 9:45 AM. The **auction** now appears as shown in Table 3. Note that the **auction** coordinator could also have shifted the closing times only. In that case, all lots would have gone to Open status and bidders could have commenced **bidding** immediately.

Bidding begins on all of the lots at 9:45 AM. Then a second technical disruption... ..placed on Lots 2 and 3. As the duration of the interruption is unknown, the **auction** coordinator decides to once again place all lots in Pause status until the technical difficulty... ..to await the lifting of the Pause status, but all existing bids are preserved. The **auction** now appears as shown in Table 4.

The technical disruption is resolved at 10:30 AM. The **auction** coordinator alters the closing times (but not the opening times) of the lots to give... ..space out the closing times of Lots 2 and 3 at 20 minute intervals. The **auction** coordinator does not change the opening times of the lots, and therefore preserves bids that have already been made. All lots return to Open status when the **Auction** Pause is lifted and may commence **bidding** immediately. The **auction** now appears as shown in Table 5.

Bidding continues on Lot 1 until 10:55 before the final bid is placed and the... ..2 into Extended status moving the scheduled closing time back to 11:05 AM. The **auction** now appears as shown in Table 6.

Now it is discovered that some, but not... ..the bidders on Lot 2 have made an incorrect assumption in preparing their quotes. The **auction** coordinator needs time to communicate with all bidders and correct the error, and estimates that... ..closes. However, there is no disruption to Lot 3, which can continue as scheduled. The **auction** coordinator places Lot 2 in the Pause status, and changes the scheduled closing time for Lot 2 to 11:40 AM. No

change is made to Lot 3. **Bidding** continues on Lot 3, but no bids can be placed on Lot 2 at this point. Lot 2 is now scheduled to close after Lot 3. The **auction** now appears as in Table 7.

By 11:17, all of the bidders have received... ..will ensure that bidders have adequate time to return to Lot 2 once Lot 3 **bidding** ends. The **auction** now appears as shown in Table 8.

The lot statuses will now follow their normal procedures through to the end of the **auction**.

Bidder-Specific Bid Limitations

It is common for sellers (upward **auctions**) and buyers (downward **auctions**) to place market limitations on the amounts that bidders may submit as valid bids during the course of an online **auction**. For example, a buyer may require that **bidding** start below a certain ceiling. In this case, the buyer is not interested in making... ..obtain some form of price discovery with respect to individual bidders prior to the online **auction**. For example, it is not uncommon in industrial procurement for the buyer to receive bids from potential suppliers prior to an online **auction**. The buyer may have solicited a "first round" of bids ("pre-bids") prior to deciding to conduct the online **auction**, or a series of bids may arrive without solicitation from the buyer. At this point, the buyer has three options for conducting the online **auction**:

A first option is to set a ceiling at the highest pre-bid. In this case, suppliers who submitted lower pre-bids prior to the online **auction** may commence **bidding** at a level higher than their pre-bids. During the course of the event, the **bidding** activity may not reach the level of the lowest pre-bid. This could occur for... ..the market approaches the value of their pre-bids. This is a situation unique to **auctions** in industrial markets where the buyer can award to a non-low **bidding** supplier (switching costs and non-price variables establish "stickiness" in **bidding** behavior). Without the leaders **bidding** at all, there may not be enough competition to drive the online **auction** to its potential. Possibly, no new bids will be received online at all. The buyer in this case has lost the potential for the interactivity of the **auction** to produce a better result.

Second, if the rules of the online **auction** require the buyer to forego the pre-bids (for example, to avoid the problem described... ..then the leaders can start much higher than their pre-bids. In fact, the low **bidding** pre-bidder only needs to ...a ceiling at the lowest bid. In this case, some suppliers may be prevented from **bidding** because they cannot meet the ceiling. This does not matter if the buyer is indifferent... ..buyer awards to the lowest bidder either at the ceiling or the market price if

bidding goes below the ceiling). However, in industrial business-to-business **auctions** it is not uncommon for the buyer to choose a non-low **bidding** supplier (switching costs and non-price variables affect the final decision). Many suppliers who did not have the lowest bid prior to the online **auction** may want to reduce their bid to close the gap on the lowest placed bidder... ..but they may be able to improve their position. However, the ceiling in the online **auction** prevents them from **bidding** at all. Thus, the buyer loses the benefit of receiving the lowest bid possible from... ..that this is a problem unique to industrial business-to-business markets. In most other **auction** situations, the market-leading bid automatically wins, and setting the ceiling at the lowest bid... ..limitations feature addresses the shortcomings of market-wide bid ceilings. With this feature, an online **auction** can set up such that individual bidders have different limits on the bids that will be accepted during the course of the **auction**. For an upward **auction**, the seller may set different floor prices for different bidders. For a downward **auction**, individual ceiling prices can be established for bidders. This avoids the "buyer's (or seller... ..lower their price any further through manual negotiation. The buyer decided to hold an online **auction** but wanted to ensure that suppliers would not start **bidding** higher than their pre-bids. Since the bids were received in confidence (as is often... ..enter opening bids equal to their previous best "on behalf" of the suppliers.

An online **auction** is then conducted on the basis that the pre-bids would be foregone, and only a supplier who participated in the online **auction** would be awarded the business. Accordingly, all suppliers would have to re-bid to

win... individual bid ceilings are not visible to the other suppliers. The result of the online **auction** with bidder-specific bid limitations is also shown in Table 9.

As illustrated, all suppliers lowered their bids as a result of the online **auction**. Note that suppliers C and D did not drop their bids to meet the lowest... outcome shown in Table 10 below.

In this example, as a result of the online **auction**, Suppliers B, C and D lowered their bids to the "walk-away prices" assumed above... to the bid placed offline. If they did not bid at all, according to the **auction** rules they would have been ineligible for an award.

Consider the potential outcomes in the... each reach their walk-away price. Once they reach their walk-away price they stop **bidding**. When the lowest bid reaches Supplier B's walk-away price (\$8,874,012), all... just below Supplier B to reach first place. With no response from Supplier B, the **auction** closes. The buyer has lost the potential to extract an additional \$348,065 from Supplier... market closes with no activity and the buyer loses all potential gains from an interactive **auction** (Table 10).

In the best possible situation, Supplier A does not realize they have the... go below B's offline bid. At this point B is drawn into the competition. **Bidding** will likely continue until B and C reach their walk-away prices. At this point... away prices above B's offline bid, then C, D, and A would have stopped **bidding** before B was drawn into the competition. In which case, the result could have been considerably worse. The point here is that using an online **auction** can be risky for the buyer in some situations, due to the potential to share... It is not uncommon for a bidder to make errors when placing bids during an **auction**. The prior system prevented some of these errors through the use of a confirmation pop... that this information is correct prior to sending the bid across the network to the **auction** server. The bidder must either confirm the bid by clicking on the "confirm" button or... result in no bid being entered. Once a bid is confirmed and sent to the **auction** server, it is entered into the online **auction** and market information from that bid is displayed to all bidders.

However, the confirmation pop... entered erroneous bids even though they had to confirm the bids. The pace of the **auction**, and **bidding** on multiple lots simultaneously allows for bidder errors. Because erroneous bids affect the critical integrity of the **auctions**, additional error detection and prevention features were developed using system-based intelligence.

One additional layer of protection is through failsafe functionality. Failsafe rules allow the **auction** coordinator to limit the bidders' ability to enter certain bids. The consequences for breaking these... and flexibly predefine consequences if that criteria is met, all in relation to specific online **auctions** and different lots within an **auction**.

In one embodiment, the failsafe rules are implemented by the server component. In an alternate... by the client component.

Another error prevention feature is the override function. Override allows the **auction** coordinator to override or remove erroneous bids from the **auction** in real-time. A bid can be quickly and efficiently removed before it prejudices the... in response to an erroneous bid, all consequential bids can be removed as well. Accordingly, **auctions** can be completed by picking up from the point of the last valid bid, rather than starting over.

If a bid is overridden, the **auction** coordinator warns the bidders that an erroneous bid has been received and removed through a... is sent to every bidder and appears as a warning on their user interface. The **auction** coordinator types in a text message and send it to each bidder over the same network that is running the **auction**. Message boxes appear on **bidding** screens and bidders must click "OK" before they can continue to bid.

As an example... D, & E are engaged in a competitive interaction on Lot 1 of a multi-lot **auction** between 1:25 PM and 1:27:30 PM at a price between \$1.5... at 1:40 PM, as shown in Table 13.

Prior to the opening of the **auction**, the **auction** coordinator activated three failsafe rules. First, once a bidder has placed an initial bid, they... ..bid more than 70% below historic price will be accepted at any point throughout the **auction**.

Supplier F decides to commence **bidding** on Lot 1. On their opening bid, Supplier F omits a zero from the bid... ..activated and the bid is entered.

Supplier F immediately recognizes the mistake and contacts the **auction** coordinator. After confirming that this is a bona fide error, the **auction** coordinator warns the other participants that the latest bid from Supplier F is erroneous and activates the override feature. The bid is removed from the online **auction**.

Bidding continues on this lot without a disruption in the **auction** process, and without prejudicing the position of the other bidders.

The operation of the error... ..shown in Fig. 15C. If the bidder reconfirms the bid, then is entered into the **auction** at step 860. If the bid passed the reconfirmation failsafe criteria at step 850, then no reconfirmation is needed, and the bid is entered into the **auction** at step 860. The entire process 800 is repeated for every bid that is submitted in the **auction**.

While the invention has been described in detail and with reference to specific embodiments thereof... ..from the spirit and scope thereof. In particular, it should be noted that while the **auction** functions described above have been described in the context of downward pricing **auctions** the **auction** functions can be equally applied to upward pricing **auctions**. Thus, it is intended that the present invention cover the modifications and variations of this...

Claims: ...line items;

(b) providing a user interface for setting adjustment rules at a line item **level** for line item **bids**;

(c) inputting an adjusted **bid** at a lot **level**; and

(d) in **response** to the input of said adjusted **bid** at said lot **level**, automatically calculating adjusted **bids** at said line item level in real-time in accordance with said adjustment rules.

2... ..wherein step (d) comprises the step of calculating line item price adjustments using said adjusted **bid** at said lot **level**, wherein said line item price adjustments are made on a pro rata basis to said... ..more line items;

(b) a user interface for setting adjustment rules at a line item **level** for line item **bids**;

(c) means for inputting an adjusted **bid** at a lot **level**; and

(d) calculation means for calculating, in response to the input of the adjusted **bid** at the lot **level**, adjusted **bids** at the line item level in real-time in accordance with said adjustment rules.

15...

11/K/27 (Item 9 from file: 348)

EUROPEAN PATENTS

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Method and system for conducting electronic auctions

Country	Number	Kind	Date
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Abstract ...invention relates to a method of automatically verifying and rejecting invalid inputs in an electronic **auction** system having the form of a computer network. The method comprises the steps of setting...

Type	Pub. Date	Kind	Text
Available Text	Language	Update	Word Count
Total Word Count (Document A)			
Total Word Count (Document B)			
Total Word Count (All Documents)			

Specification: ...A2

Background of the Invention

The disclosed inventions relate generally to conducting electronic **auctions**, and in particular to business-to-business **bidding auctions** for industrial purchasers.

Traditional Procurement Models

Procurement of supplies has traditionally involved high transaction costs... ...that transactions can take place electronically. There are three models for online procurement: catalog, buyer-**bidding auction**, and seller-**bidding auction**.

The "catalog" model of online procurement was the first to be developed. The first electronic... ...time. When many buyers compete for the right to buy from one seller, a buyer-**bidding auction** model is created. A noteworthy example of the buyer-**bidding auction** model is that operated by PriceLine.com and described in U.S. Pat. No. 5... ...accept a bid, thereby committing the buyer to buy the ticket.

The catalog and buyer-**bidding auction** types of electronic markets do not work in some situations however. If the required product... ...possible for buyers to identify the product they want to bid on in a buyer-**bidding auction**. There are fewer suppliers and no standard product and pricing information available for the buyer... ...is hard for a new supplier to enter the market.

Therefore, buyers wanted to use **auctions** to save money. The assignee of the present application developed a system wherein sellers downwardly bid against one another to achieve the lowest market price in a supplier-**bidding auction**.

Supplier-Bidding Auction

In a supplier-**bidding auction**, bid prices start high and move downward in reverse-**auction** format as bidders interact to establish a closing price. The **auction** marketplace is one-sided, i.e. one buyer and many potential suppliers. Typically, the products... ...the same mold. These items are therefore grouped into a single lot. Bidders in industrial **auctions** must provide unit price quotes for all line items in a lot.

Auction Process

The process for a supplier-**bidding auction** as conducted by the assignee of the present application is described below with reference to Figs. 1 and 2. Fig. 1 illustrates the functional elements and entities in an supplier-**bidding auction**, while Fig. 2 is a process diagram that identifies the tasks performed by each of the involved entities.

The supplier-**bidding auction** model requires that the **bidding** product or service be defined by the buyer (identified as Buyer 10 in Fig. 1). An **auction** coordinator (Coordinator 20 in Fig. 1) works with buyers to prepare for and conduct an **auction** and to define the potentially new supply relationships resulting from the **auction**.

As shown in Fig. 2, in the Initial Contact phase 102 of the **auction** process, the coordinator contacts the buyer, and the buyer provides data to the coordinator. The... ..The buyer makes a decision regarding which potential suppliers will receive invitations to the upcoming **Auction**. Suppliers that accept **Auction** invitations are then sent notices regarding the upcoming **Auction**, as well as client software to install in preparation of participating the **Auction**.

In the RFQ phase 104, coordinator 20 works with the buyer 10 to prepare a... ..bid on that portion of the business for which they are best suited.

During the **auction** 56, bids 58 will be taken against individual lots (and their constituent parts 52) within... ..While bidders must submit actual unit prices for all line items, the competition in an **Auction** is based on the aggregate value bid for lots. The aggregate value bid for a lot depends upon the level and mix of line item **bids** and the **quantity** for each line item. Therefore, bidders submit bids at the line item level, but compete on the lot level.

In the **Auction** Administration phase 106, coordinator 20 coordinates the **Auction** and administers the **Auction** setup and preparation. The coordinator sends a RFQ to each participating supplier, and assists participating suppliers with preparation for the **Auction**.

In the **Auction** phase 108, suppliers 30 submit bids 58 on the lots and monitor the progress of the **bidding** by the participating suppliers 30. The coordinator assists, observes, and administers the **Auction**.

When the **bidding** period is over, the **auction** enters the **Auction** Results Administration phase 110. In this phase, coordinator 20 analyzes and administers the **Auction** results, which are viewed by buyer 10. The buyer begins to conduct final qualification of the low **bidding** supplier(s). The buyer may retain the right not to award business to a low **bidding** supplier based on final qualification results or other business concerns.

In the ensuing Contract Administration... ..52 are then drawn up between buyer 10 and suppliers 30.

Communications and Software

The **Auction** is conducted electronically between potential suppliers 30 at their respective remote sites and the coordinator... ..using modems, or direct network connections. A computer software application is used to manage the **Auction**. The software application has two components: a client component 31 and a server component 23... ..suppliers 30. The client component is used by suppliers 30 to make bids during the **Auction**. The bids are sent via the network service provider 40 to the site of the... ..using the client component of the application -- this ensures that buyers do not circumvent the **bidding** process, and that only invited suppliers participate in the **bidding**. Typically, bidders can see their bids and bids placed by other suppliers for each lot... ..quickly the change in market conditions and begin planning their competitive responses.

Conduct of an **Auction**

The conduct of an **Auction** will now be described in conjunction with the operation of the software application. The **Auction** is conducted on a specified date, and commences at a specified time. **Bidding** on each of the lots of products involved is scheduled to begin simultaneously at the start time for the **Auction**. Each lot is assigned a scheduled closing time after which further bids by potential suppliers... ..not coterminous.

Associated with each lot at any given time in the progress of the **Auction** is a **bidding** status. The possible **bidding** statuses are illustrated in Fig. 5. The status initially assigned to each lot, before the scheduled start time of the **Auction**, is "Available." This status indicates that the lot will be available for **bidding** in the **Auction**. In the normal sequence of an **Auction**, the next **bidding** status is "Open," which indicates that the **Auction** is underway and that bids can be submitted for the lot. There are two possible **bidding** statuses to which a lot with an "Open" status can change: "Overtime" and "Closed." Overtime indicates an **extension** of **time** to allow **bidding** to continue after the scheduled closing time for **bidding** on the lot. If **bidding** is still active at the end of a first Overtime period of predetermined duration, the server application allows a second Overtime, and so on, until **bidding** has closed.

"Closed" indicates that the server application will no longer accept bids on the lot. A lot's status changes from Overtime only to Closed.

Information regarding the **Auction** that can be displayed by the client application is illustrated in Figs. 6A - 6D at selected times during the conduct of an **Auction**. Fig. 6A illustrates lot information provided at the start of an **Auction**. The lot closing times are shown for each of the lots (01 - 08) as 10... ..the upper right corner of the display.

The presented information changes during the course of **bidding**. For purposes of illustration in this example, a series of bids for lot 01 is... ..status of lot 01 are also illustrated in Fig. 7 for selected times and corresponding **bidding** events during the **Auction**. Fig. 7A shows a time line for lot 01, with the bid event letters corresponding to the bids in Fig. 8.

This **Auction** employs a decision rule to trigger overtime that can be stated: "when a low bid... ..added. Lot 01 therefore closes at 10:32.

Fig. 6B shows the status of the **Auction** at 10:27. Lot 01 is shown as "Open," with a current Market Bid (best current bid) of \$374,586. This reflects the status after **bidding** several bids have been received. Fig. 6C illustrates the status of the **Auction** at 10:30 AM, after bids B and C. In bid B, Bidder15 submitted another best bid (\$373,063), which initiated a one-minute overtime **period, extending** the **closing time** for lot 1 to 10:31. In bid C, Bidder7 submitted another best bid (\$372,500), which initiated another one-minute overtime **period, extending** the **closing time** for lot 1 to 10:32. Bid D, submitted at 10:30:45 was another... ..within one minute of closing, was not a new low bid and therefore did not **extend** the **closing time** for Lot 1. Lot 1 therefore closed at 10:32, with a Market Bid of \$371,373, as shown in Fig. 6D (which shows the status of the **Auction** at 10:32:05).

Bidding Dynamics

Suppliers prepare their price quotes in light of a number of factors. These factors... ..that are not predictable during the preparation of quotations but that are evident during the **auction** can also ...important in determining, for example, how aggressively other participants may bid.

Because business-to-business **auctions** are conducted for important custom components, low bidders may still be "passed over" if other bidders demonstrate non-price advantages.

Sometimes **auctions** involve parts that this purchaser has procured before, and are possibly being made currently by... ..being made by a supplier, that supplier would be termed the "incumbent supplier." In an **auction** situation, the incumbent supplier is placed in a position of having to defend its contract... ..their incumbent status.

Certain human factors must also be considered when conducting business-to-business **auctions** for industrial purchasing. If not considered, these human factors can interfere with achieving desired outcomes. Bidders must be comfortable with the

auction software. Bidders often speak English as a second language, or not at all, making it... ..situations where losing the contract in question literally means losing their business.

Problems with Prior Auction Process

The prior **auction** process described above has been found to produce suboptimal results for buyers in light of... ..include: a) multiple lot closing time collisions; b) premature lot closings; c) difficult and inflexible **bidding** constraints due to lot/line item structure; d) possible prejudice to bidders resulting from technical... ..same time. By spacing the closing times for each lot, a supplier knows that while **bidding** on one lot, the next lot in the **Auction** will not close. This staggered closing is one way to work around cognitive limits - each... ..scheduled closing time of a subsequent lot. This situation begins to tax cognitive limits, and **bidding** opportunities on the subsequent lots are often missed. Although this problem might be resolved by... ..experience has shown that even this approach would

not be sufficient. For example, in one **Auction** with 2 lots scheduled with 20 minutes between closing times, actual **bidding** on the first lot continued for 5 hours and 31 minutes after scheduled close.

The second problem is premature closing of **bidding** on lots. Just as in an in-person **auction**, **bidding** activity tends to increase close to the scheduled closing time. Like the "going, going, gone" **auction** concept, it is possible to achieve a better **auction** price if the **auction** is allowed to continue if bids are still being made. As described above, this concept... ..of a specific lot is automatically extended based on the flow of bids into the **Auction**. Overtime prevents bidders from hanging back and submitting last minute bids in an attempt to... ..incumbent supplier might be expected to do, would not trigger an overtime. Unlike in-person **auctions**, industrial **auctions** need to allow second place bids. Thus, it has been found that this is an overly simplistic model, which may still be cutting off **bidding** too soon. A low bidder needs a chance to react to a second place bid... ..fixed offsets between lot closing times, with fixed trigger time frames (the period before scheduled **closing** or current Overtime **ending**), and fixed **extension periods** for Overtime. In industrial markets, **bidding** events involve commodities of varying complexity and component packages of different sizes. Accordingly, bidders may... ..respond to a bid. The amount of overtime may need to be customized for specific **bidding** events or for individual lots within an **Auction** to obtain the optimal market dynamic. It is therefore desirable to provide more flexibility in... ..system is that bids needed to be made at the line item level. However, the **auction** takes place at the lot level, where all of the line item quotes are added...this lot may be comprised of hundreds of individual items or cost elements. Initial online **auctions** only allowed line item price adjustments, and it was difficult to fine-tune the mix... ..total lot price bids. This was frequently too time-consuming to keep pace with the **auction**.

With the time constraints on **bidding**, bidders wanted the ability to be able to rapidly adjust the lot price without specifically... ..to be applied selectively instead of universally.

Another problem that can arise either in regular **bidding** or in Overtime is addressing technical disruptions. Real-time technical or operational disruptions in the communications network, software or hardware during the course of a **bidding** event may prevent a bidder from fully participating. Disruptions may arise in the online network... ..the equipment used by an individual bidder.

In addition, market events or imperfections may disrupt **bidding** activity and require communication with bidders before the **auction** can continue. For example, in one **auction bidding** for an **auction** lot commenced and it became clear that some of the bidders were including tooling costs... ..this example, the bidders needed to be contacted and informed of the correction before the **auction** could proceed with all bidders on an equal footing.

Other external factors may disrupt the operation of the **auction** or participation by bidders. In another example, a snow storm prevented many bidders from getting to work on time for the opening of the **auction**. This was not discovered until many bidders failed to commence **bidding**.

With a business-to-business transaction, it is typically commercially unacceptable for any bidder to be denied full participation. However, where disruptions arise in the course of a **bidding** event, the **bidding** activity and positions of other bidders cannot be prejudiced. Accordingly, market closing times may need... ..whether it will be possible to resolve all problems prior to the close of an **auction** lot.

Another problem that occurred in the previous system was the submission of erroneous bids. **Bidding** errors can happen due to the nature of the online **auction**. The pace or intensity of the **bidding** activity can exceed cognitive limits of bidders. In an effort to keep up, bidders enter incorrect quote amounts. Bidders are frequently interested in **bidding** on multiple lots. In the course of monitoring or switching between lots, the bidder erroneously... ..that would be incurred by honoring an erroneous bid is substantial.

In an online industrial **auction**, an incorrect bid can upset the **bidding** behavior of other bidders creating inequity for all participants in the market. All bidders in... ..in error, and the other bidders proceed to bid in response, the integrity of the **auction** is damaged. This can result in suboptimal results for both buyers and suppliers.

Summary of the Invention

The problems encountered with the operation of the prior **auction** system are overcome by the **auction** system of the invention, which enables flexible dynamic alterations of market closing times, line item decision rules, **auction** pause, bidder-specific bid limits, and the ability to detect and prevent erroneous bids.

The... ..be adjusted to suit the complexity and size of the market lots involved in the **bidding** event. This permits bidders to have more overtime to respond to each new bid if... ..trigger for additional overtime can be flexibly set to include a range of behind-market **bidding** activity. The type of behind-market activity that would trigger additional overting includes bids or... ..is triggered when certain bids upset the market dynamic.

In multi-market, or multi-lot **bidding** events, where prior market lots run into overtime, the closing times of subsequent market lots... ..the position of having to bid for different market lots at the same time.

Once **bidding** activity has ceased, a lot is placed into "Pending" status prior to closing the lot... ..technical disruption a lot can be returned to "Open" status for all participants to allow **bidding** activity to continue. Pending status will then be used again to dynamically alter lot closing... ..irrespective of any technical disruptions that occur during the event without prejudicing the positions and **bidding** activity of other bidders.

"Pause" status ensures that disruptions to an **auction** can be dealt with equitably without prejudicing existing **bidding** activity or positions achieved by bidders. **Auction** Pause allows the **auction** coordinator to indefinitely "freeze" an **auction** without disrupting the bids placed before the pause went into effect. The Pause status can be applied to an entire **auction** (all lots) or to specific lots within an **auction**. The Pause status can be applied at any time during an **auction** and will override any other status currently in effect. In one embodiment, no bidder is able to submit bids while the **auction** is in Pause status. In an alternate embodiment, bids may continue to be received but would not be entered into the **auction**. In this embodiment, bids could be held in a queue awaiting entry upon the removal of the Pause status.

Flexible bidder-determined line item decision rules for **bidding** permits bidders to set specific price decision rules for aspects of individual line items within... ..items within a lot. Decision rules can be set dynamically during the course of the **bidding** event by the bidder.

Flexible line-item decision rules enable bidders to lock-in a... ..the comfort of setting floors or ceilings on individual or cost component bids. During the **bidding** event, fixed components can be reevaluated and unlocked if necessary in response to movements in the market beyond original expectations. This **bidding** flexibility allows bidders to participate in the **auction** fully, and increases competition.

Bidder-specific bid rules enable an **auction** coordinator to maximize the competitive nature of an **auction**. In a downward **auction**, each bidder is assigned an individual bid ceiling by the buyer. This bid ceiling sets... ..bid ceilings are advantageous to the buyer because it prevents a bidder from withholding pre-**auction** bids from the market.

The ability to detect, prevent and remove erroneous bids ensures that erroneous bids can be dealt with equitably without prejudicing other bidders or interrupting the **auction**. A confirmation box is presented to the bidder to confirm the amount of a bid... ..entered. All bids must be checked and confirmed before they will be submitted to the **auction** server. Predefined "failsafe" rules allow the bidder to limit bids to a certain range. If during the course of an **auction**, the bidder bids outside that range, additional bid confirmations may be required, or the bidder may be prevented entirely from entering bids that fail "failsafe" criteria. The **auction** coordinator may override or remove erroneous bids from the **auction** in real-time. Bids can be quickly and efficiently removed before it prejudices the positions... ..Drawings

Fig. 1 is a schematic illustration of the elements and entities involved in an **auction** process.

Fig. 2 is a schematic illustration of the tasks performed by the entities involved in an **auction** process.

Fig. 3 is a schematic illustration of the communications links between the coordinator and the potential suppliers in an **Auction**.

Fig. 4 is a schematic illustration of the client and server components of the computer software application that conducts the **Auction** and the hardware at the sites of the coordinator and the potential suppliers on which the client and server components operate.

Fig. 5 is a schematic illustration of the possible **bidding** states in the prior **auction** system.

Figs. 6A - 6D illustrate the information displayed by the client application in the prior **auction** system at various times during a sample **Auction**.

Figs. 7A - 7B illustrate the change in **bidding** status of one lot in the **Auction** illustrated in Figs. 6A- 6D.

Fig. 8 illustrates a series of bids submitted on one of the lots during the **Auction** illustrated in Figs 6A - 6D.

Figs. 9A- 9B illustrate the changes in **bidding** status and closing times for multiple lots using the **dynamic** lot **closing extension** feature.

Fig. 10 is a schematic illustration of the possible **bidding** states in the **auction** system.

Fig. 11 is a flow chart illustrating the operation of the **dynamic** lot **closing extension** feature.

Fig. 12 is a flow chart illustrating the operation of the flexible overtime feature... ..detection features.

Figs. 15A-15C illustrate error detection warning and confirmation messages.

Detailed Description

The **auction** method and system of the invention are described below. Seven aspects of the system and method are described: a) **dynamic** lot **closing extension**; b) flexible overtime; c) flexible bidder-determined line item decision rules; d) pending status; e) bidder-specific bid limits; f) **auction** pause; and g) error detection and prevention.

Dynamic Lot Closing Extension

The problem identified above of multiple lot closing collisions is addressed with the **dynamic** lot **closing extension** feature. This feature involves rescheduling, or **extending**, the **closing time** of a subsequent lot when the closing time of a preceding lot is extended to... ..line divided into time intervals of (DELTA)t between times t1, t2, etc. The scheduled **bidding** periods for two lots in the **Auction** are times t1 (the opening time for the **Auction**) through t6 (the initially scheduled closing time) for Lot X, and time t1 - t11 for... ..times t6 and t11 are staggered to permit potential suppliers to focus their attention on **bidding** on a prior lot (Lot X) before it closes, then to turn their attention to **bidding** on a subsequent lot (Lot Y) with adequate time before it closes. The time interval... ..increments (DELTA)t.

Fig. 9B shows the changes of status of various parameters in the **auction** as bids are received. Fig. 9B identifies the time interval during which the bid is received, the **bidding** status of Lot X before and after the bid is received, the **bidding** status of Lot Y before and after the bid is received, the closing time of... ..and the closing time of Lot Y before and after the bid is received.

The **Auction** begins at time t1. At the beginning of the **Auction**, and during the initial course of **bidding**, both lots have a **bidding** status "Open." During the course of **bidding**, a bid submitted on Lot X can trigger an extension of Lot X's closing... ..of time before the closing time). Thus, bids A and B do not change the **bidding** status of Lot X or the closing times of the lots, because they are not... ..triggers "Overtime" for Lot X. This is reflected in Fig. 9B,

which indicates that the **bidding** status of Lot X was "Open" before the bid and "Overtime" after the bid. The scheduled **closing** time for Lot X is **extended** by an Overtime **interval** (defined in this example to be one interval (DELTA)t) from t6 to t7. Since... ..Overtime," but because it was received within one increment (DELTA)t of the then-scheduled **closing** time t7, the scheduled **closing time** is further **extended** by one increment (DELTA)t to t8. Again, there are still at least three intervals... ..effect on the closing time of Lot Y.

When Bid E is received, both the **bidding** status and the closing time of Lot X are unaffected, because the bid is received... ..t's, Bid F triggers Lot Y to change status from Open to Extended, and **extends** the **closing time** for Lot Y to t12.

The Extended status can be applied to more than one... ..lot's closing time to less than the minimum interval, and the second lot's **closing time** is therefore **extended** sufficiently long that it in turn is too close to the scheduled closing time of a third lot, the third lot's **closing time** is in turn **extended** to be at least the minimum interval beyond the second lot's **closing time**.

Flexible market **closing extensions** is implemented in the **auction** system ...into memory 22A for use by the server component of the application software when an **Auction** is loaded. When the closing time for a given lot is adjusted, the closing time... ..closing extensions feature is illustrated in the flow chart of Fig. 11. The process for **dynamically extending** the **closing time** of multiple lots is shown as process 500. The **Auction** continually receives bids at step 510 until a predetermined interval of time before the scheduled... ..closing time of the next lot is greater than or equal to the minimum lot **closing interval**, then no **extensions** are necessary, and the process returns to step 510, where bids for the current lot... ..current lot are again received at step 510.

Flexible Overtime

As described above, the prior **auction** system employed a simple, static model for Overtime, in which Overtime was triggered by a new low bid submitted within a predetermined time interval before a scheduled **closing** time, and the scheduled **closing time** was **extended** by a predetermined **time** period. This rule can be articulated as: "a market-setting low bid, received in the... ..increment (DELTA)t to the scheduled closing time." This Overtime rule was applied to all **Auctions**, to all lots in an **Auction**, at all times during an **Auction**. The flexible overtime feature of the present **auction** system addresses the shortcomings of the prior static overtime feature.

Flexible overtime has two aspects... ..triggers. The variable duration aspect involves overtime extension intervals (time intervals by which a scheduled **closing** time, whether an initially-scheduled **time** or an **extended time**, is **extended**) and overtime trigger **intervals** (intervals before a scheduled **closing** time in which a bid meeting defined criteria will trigger overtime). These intervals can be... ..submitted within the appropriate interval was lower than the current best bid. In the disclosed **auction** system, overtime triggers can be based on other parameters and criteria. For example, the rank...include the option to vary the overtime extension interval dynamically during the course of the **Auction**.

It should be noted that an overtime trigger can also be based upon evaluations of... ..group or particular supplier). As a general rule, the overtime trigger seeks to extend the **auction** for a lot if there is any indication that further **bidding** would somehow be advantageous to the buyer.

Flexible overtime can be implemented in the illustrated **auction** system in a variety of ways. In one embodiment, a parameter is stored in storage... ..into memory 22A for use by the server component of the application software when an **Auction** is loaded. When overtime is triggered on a given lot, the server component adds the... ..step 610 to receive the next bid.

Flexible Bidder-Determined Line Item Decision Rules

This **bidding** feature of the **auction** system of the invention provides a method for allowing bidders to bid at the lot... flexible line-item decision rule enables a buyer to automatically adjust aspects of line item **level bids** based upon one or more inputs at the lot or line item level.

In one...remains unchanged. However, limits can be locked and unlocked dynamically during the course of an **Auction** by the bidder

This particular flexible line-item decision rule allows bidders to lock in... setting floors or ceilings on all or part of individual line item bids. During the **Auction**, fixed components can be re-evaluated and unlocked if necessary in response to movement in... the line item bids. Items can be locked or unlocked at any time during the **bidding** event.

An example of the Lock/Unlock feature is shown below. Initially, line item 1... item adjustments is reflected by the following:

The locked / unlocked feature is implemented in the **auction** system by data structures maintained in the client software that support capture of locked and... item level. These flexible line-item decision rule can be created to accommodate any pre-**auction bidding** strategy that could be jeopardized by the bidder's interaction in a real-time **auction** event. For example, a customized flexible line-item decision rule can be created such that... either the lot or line item level.

Pending Status

The pending status feature of the **auction** system of the invention provides an intermediate **bidding** status for each lot to transition the lot from a status in which bids can... Extended) to a status in which bids will no longer be accepted (Closed). The intermediate **bidding** status is "Pending." This status indicates that bids are not being accepted on the lot but that the lot may subsequently be returned to Open status for **bidding**. This allows a time period for a bidder who has missed an opportunity to bid... can then evaluate the asserted fault and determine whether it is appropriate to allow further **bidding** on the lot. If so, the lot can be returned to Open status for **bidding**. If not, the lot is Closed. The lot can be returned to Open status immediately... a convenient time to re-open is scheduled.

Pending status is implemented in the illustrated **auction** system by storing two parameters in storage 22B: one parameter that specifies the length of... into memory 22A for use by the server component of the application software when an

Auction is loaded. When the scheduled closing time for a lot is reached, the **bidding** status is set to "Pending" instead of "Closed." If the automatic close flag is set...bidder calling the coordinator during the Pending period to communicate problems that occurred during the **bidding** for that lot. If this happens, the coordinator manually changes Auto(underscore)close to NO... Auto(underscore)close flag or the Status. If after investigation, it turns out that the **bidding** does not need to be returned to open status, then the coordinator can change the... to step 770, and closing the lot. If after investigation it is decided that the **bidding** should be reopened for that lot, the coordinator can manually change the status to OPEN... time for this lot will be adjusted to a new scheduled closing time, and the **Auction** will start receiving bids again for that lot at step 710. The entire process 700 is repeated.

Bidding Statuses

The possible **bidding** statuses for the present **auction** system and method are identified in Fig. 10. In addition to the statuses identified in Fig. 5 for the prior **auction** system, the present system includes the statuses of Extended and Pending. As shown in Fig... to Pending status. Further, a lot can change from Pending to Open or Closed status.

Auction Pause

Auction Pause allows the **auction** coordinator to indefinitely "freeze" an **auction**, without disrupting the bids placed before the pause went into effect. The pause status can be applied to an entire **auction** (all lots) or to specific lots within an **auction**. The Pause status can be applied at any time during an **auction** and will override any other status currently in effect. While in Pause status, all existing bids are preserved. An entire **auction** (or individual **auction** lots) can be held in Pause status for an indefinite period of time. In one embodiment, no bidder is able to submit bids while the **auction** is in Pause status. In an alternate embodiment, bids may continue to be received but would not be entered into the **auction**. In this embodiment, bids could be held in a queue awaiting entry upon the removal of the Pause status.

The **auction** coordinator determines the lot status that applies once the pause is removed. While in Pause status, the **auction** server clock will continue to operate. Hence, without any intervention by the **auction** coordinator, the lot status that applies once the pause is removed will be the lot... ..if the scheduled lot closing time passes while the lot is in pause, and the **auction** coordinator lifts the pause status, the **auction** lot will return to "Closed" status. However, the **auction** coordinator can alter the scheduled timing that applies to all lots (i.e. alter the... ..the correct lot status applies once the pause is removed. Thus, all bidders see the **auction** server clock match the correct time while the **auction** coordinator can achieve any relevant lot status once the pause is removed.

For example, as shown below in Table 1, an online **auction** is scheduled to open at 9:00 am at which time all lots will open... ..in Available status.

Suppose there is a technical disruption at 8:50 AM and the **auction** coordinator is not sure how long it will take to resolve the issue. Instead of canceling the **auction**, the **auction** coordinator places the entire **auction** in Pause status. The **auction** now appears as shown in Table 2.

The technical disruption is resolved at 9:32 AM. At this point, if the **auction** coordinator lifted the Pause status, Lot 1 would immediately go to Pending and then to... ..interval has been set to a total of 5 minutes after scheduled close by the **auction** coordinator.) Bidders would therefore not have an opportunity to place bids for Lot 1. To avoid this outcome, the **auction** coordinator decides to alter the opening times for all lots to 9:45 AM and... ..this has the effect of returning all lots to Available status, and bidders can commence **bidding** when the lots open at 9:45 AM. The **auction** now appears as shown in Table 3. Note that the **auction** coordinator could also have shifted the closing times only. In that case, all lots would have gone to Open status and bidders could have commenced **bidding** immediately.

Bidding begins on all of the lots at 9:45 AM. Then a second technical disruption... ..placed on Lots 2 and 3. As the duration of the interruption is unknown, the **auction** coordinator decides to once again place all lots in Pause status until the technical difficulty... ..to await the lifting of the Pause status, but all existing bids are preserved. The **auction** now appears as shown in Table 4.

The technical disruption is resolved at 10:30 AM. The **auction** coordinator alters the closing times (but not the opening times) of the lots to give... ..space out the closing times of Lots 2 and 3 at 20 minute intervals. The **auction** coordinator does not change the opening times of the lots, and therefore preserves bids that have already been made. All lots return to Open status when the **Auction** Pause is lifted and may commence **bidding** immediately. The **auction** now appears as shown in Table 5.

Bidding continues on Lot 1 until 10:55 before the final bid is placed and the... ..2 into Extended status moving the scheduled closing time back to 11:05 AM. The **auction** now appears as shown in Table 6.

Now it is discovered that some, but not... ..the bidders on Lot 2 have made an incorrect assumption in preparing their quotes. The **auction** coordinator needs time to communicate with all bidders and correct the error, and estimates that... ..closes. However, there is no disruption to Lot 3, which can continue as scheduled. The **auction** coordinator places Lot 2 in the Pause status, and changes the scheduled closing time for Lot 2 to 11:40 AM. No

change is made to Lot 3. **Bidding** continues on Lot 3, but no bids can be placed on Lot 2 at this point. Lot 2 is now scheduled to close after Lot 3. The **auction** now appears as in Table 7.

By 11:17, all of the bidders have received... ..will ensure that bidders have adequate time to return to Lot 2 once Lot 3 **bidding** ends. The **auction** now appears as shown in Table 8.

The lot statuses will now follow their normal procedures through to the end of the **auction**.

Bidder-Specific Bid Limitations

It is common for sellers (upward **auctions**) and buyers (downward **auctions**) to place market limitations on the amounts that bidders may submit as valid bids during the course of an online **auction**. For example, a buyer may require that **bidding** start below a certain ceiling. In this case, the buyer is not interested in making... ..obtain some form of price discovery with respect to individual bidders prior to the online **auction**. For example, it is not uncommon in industrial procurement for the buyer to receive bids from potential suppliers prior to an online **auction**. The buyer may have solicited a "first round" of bids ("pre-bids") prior to deciding to conduct the online **auction**, or a series of bids may arrive without solicitation from the buyer. At this point, the buyer has three options for conducting the online **auction**:

A first option is to set a ceiling at the highest pre-bid. In this case, suppliers who submitted lower pre-bids prior to the online **auction** may commence **bidding** at a level higher than their pre-bids. During the course of the event, the **bidding** activity may not reach the level of the lowest pre-bid. This could occur for... ..the market approaches the value of their pre-bids. This is a situation unique to **auctions** in industrial markets where the buyer can award to a non-low **bidding** supplier (switching costs and non-price variables establish "stickiness" in **bidding** behavior). Without the leaders **bidding** at all, there may not be enough competition to drive the online **auction** to its potential. Possibly, no new bids will be received online at all. The buyer in this case has lost the potential for the interactivity of the **auction** to produce a better result.

Second, if the rules of the online **auction** require the buyer to forego the pre-bids (for example, to avoid the problem described... ..then the leaders can start much higher than their pre-bids. In fact, the low **bidding** pre-bidder only needs to bid slightly ...a ceiling at the lowest bid. In this case, some suppliers may be prevented from **bidding** because they cannot meet the ceiling. This does not matter if the buyer is indifferent... ..buyer awards to the lowest bidder either at the ceiling or the market price if **bidding** goes below the ceiling). However, in industrial business-to-business **auctions** it is not uncommon for the buyer to choose a non-low **bidding** supplier (switching costs and non-price variables affect the final decision). Many suppliers who did not have the lowest bid prior to the online **auction** may want to reduce their bid to close the gap on the lowest placed bidder. They... ..but they may be able to improve their position. However, the ceiling in the online **auction** prevents them from **bidding** at all. Thus, the buyer loses the benefit of receiving the lowest bid possible from... ..that this is a problem unique to industrial business-to-business markets. In most other **auction** situations, the market-leading bid automatically wins, and setting the ceiling at the lowest bid... ..limitations feature addresses the shortcomings of market-wide bid ceilings. With this feature, an online **auction** can set up such that individual bidders have different limits on the bids that will be accepted during the course of the **auction**. For an upward **auction**, the seller may set different floor prices for different bidders. For a downward **auction**, individual ceiling prices can be established for bidders. This avoids the "buyer's (or seller... ..lower their price any further through manual negotiation. The buyer decided to hold an online **auction** but wanted to ensure that suppliers would not start **bidding** higher than their pre-bids. Since the bids were received in confidence (as is often... ..enter opening bids equal to their previous best "on behalf" of the suppliers.

An online **auction** is then conducted on the basis that the pre-bids would be foregone, and only a supplier who participated in the online **auction** would be awarded the business. Accordingly, all suppliers would have to re-bid to

win... individual bid ceilings are not visible to the other suppliers. The result of the online **auction** with bidder-specific bid limitations is also shown in Table 9.

As illustrated, all suppliers lowered their bids as a result of the online **auction**. Note that suppliers C and D did not drop their bids to meet the lowest... outcome shown in Table 10 below.

In this example, as a result of the online **auction**, Suppliers B, C and D lowered their bids to the "walk-away prices" assumed above... to the bid placed offline. If they did not bid at all, according to the **auction** rules they would have been ineligible for an award.

Consider the potential outcomes in the... each reach their walk-away price. Once they reach their walk-away price they stop **bidding**. When the lowest bid reaches Supplier B's walk-away price (\$8,874,012), all... just below Supplier B to reach first place. With no response from Supplier B, the **auction** closes. The buyer has lost the potential to extract an additional \$348,065 from Supplier... market closes with no activity and the buyer loses all potential gains from an interactive **auction** (Table 10).

In the best possible situation, Supplier A does not realize they have the... go below B's offline bid. At this point B is drawn into the competition. **Bidding** will likely continue until B and C reach their walk-away prices. At this point... away prices above B's offline bid, then C, D, and A would have stopped **bidding** before B was drawn into the competition. In which case, the result could have been considerably worse. The point here is that using an online **auction** can be risky for the buyer in some situations, due to the potential to share... It is not uncommon for a bidder to make errors when placing bids during an **auction**. The prior system prevented some of these errors through the use of a confirmation pop... that this information is correct prior to sending the bid across the network to the **auction** server. The bidder must either confirm the bid by clicking on the "confirm" button or... result in no bid being entered. Once a bid is confirmed and sent to the **auction** server, it is entered into the online **auction** and market information from that bid is displayed to all bidders.

However, the confirmation pop... entered erroneous bids even though they had to confirm the bids. The pace of the **auction**, and **bidding** on multiple lots simultaneously allows for bidder errors. Because erroneous bids affect the critical integrity of the **auctions**, additional error detection and prevention features were developed using system-based intelligence.

One additional layer of protection is through failsafe functionality. Failsafe rules allow the **auction** coordinator to limit the bidders' ability to enter certain bids. The consequences for breaking these... and flexibly predefine consequences if that criteria is met, all in relation to specific online **auctions** and different lots within an **auction**.

In one embodiment, the failsafe rules are implemented by the server component. In an alternate... by the client component.

Another error prevention feature is the override function. Override allows the **auction** coordinator to override or remove erroneous bids from the **auction** in real-time. A bid can be quickly and efficiently removed before it prejudices the... in response to an erroneous bid, all consequential bids can be removed as well. Accordingly, **auctions** can be completed by picking up from the point of the last valid bid, rather than starting over.

If a bid is overridden, the **auction** coordinator warns the bidders that an erroneous bid has been received and removed through a... is sent to every bidder and appears as a warning on their user interface. The **auction** coordinator types in a text message and send it to each bidder over the same network that is running the **auction**. Message boxes appear on **bidding** screens and bidders must click "OK" before they can continue to bid.

As an example... D, & E are engaged in a competitive interaction on Lot 1 of a multi-lot **auction** between 1:25 PM and 1:27:30 PM at a price between \$1.5... at 1:40 PM, as shown in Table 13.

Prior to the opening of the **auction**, the **auction** coordinator activated three failsafe rules. First, once a bidder has placed an initial bid, they... ..bid more than 70% below historic price will be accepted at any point throughout the **auction**.

Supplier F decides to commence **bidding** on Lot 1. On their opening bid, Supplier F omits a zero from the bid... ..activated and the bid is entered.

Supplier F immediately recognizes the mistake and contacts the **auction** coordinator. After confirming that this is a bona fide error, the **auction** coordinator warns the other participants that the latest bid from Supplier F is erroneous and activates the override feature. The bid is removed from the online **auction**.

Bidding continues on this lot without a disruption in the **auction** process, and without prejudicing the position of the other bidders.

The operation of the error... ..shown in Fig. 15C. If the bidder reconfirms the bid, then is entered into the **auction** at step 860. If the bid passed thereconfirmation failsafe criteria at step 850, then no reconfirmation is needed, and the bid is entered into the **auction** at step 860. The entire process 800 is repeated for every bid that is submitted in the **auction**.

While the invention has been described in detail and with reference to specific embodiments thereof... ..from the spirit and scope thereof. In particular, it should be noted that while the **auction** functions described above have been described in the context of downward pricing **auctions** the **auction** functions can be equally applied to upward pricing **auctions**. Thus, it is intended that the present invention cover the modifications and variations of this...

Claims: ...A2

1. A method of automatically rejecting invalid inputs in an electronic **auction** system, comprising
 - (a) setting a lot having at least one product;
 - (b) providing a user... ..claim 1 or 2, wherein step (d) comprises the step of rejecting bids from the **auction** based upon input from an **auction** coordinator.
4. The method of one of claims 1 to 3, wherein step (d) comprises... ..displayed to potential bidders.
5. A method of automatically rejecting invalid inputs in an electronic **auction** system, comprising
 - (a) setting a lot having at least one product;
 - (b) setting an individual... ..s previous offline bid.
9. A method of automatically rejecting invalid inputs in an electronic **auction** system, comprising
 - (a) setting a lot having at least one product;
 - (b) setting an individual... ..setting an individual bid floor based on price discovery prior to the start of the **auction**.
12. The method of claim 9 or 10, wherein step (b) includes the step of... ..bidder's previous offline bid.
13. A method of automatically verifying inputs in an electronic **auction** system, comprising
 - (a) setting a lot having at least one product;
 - (b) setting at least... ..The method of claim 18, wherein step (e) comprises the step of determining whether said **bid** price meets a **threshold** defined by a historical lot price.
20. The method of one of claims 13 to...product according to claim 22 stored on a computer readable recording medium.

24. An electronic **auction** system in the form of a computer network, comprising:

(a) a memory for storing a... ..said consequential bids were input if said bid has been submitted erroneously.

25. An electronic **auction** system in the form of a computer network, comprising:

(a) a memory for storing a... ..corresponding message is displayed on said user interface of said potential seller.

26. An electronic **auction** system in the form of a computer network, comprising:

(a) a memory for storing a... ..corresponding message on said user interface of said potential bidder is displayed.

27. An electronic **auction** system in the form of a computer network, comprising:

(a) a memory for storing a...

11/K/28 (Item 1 from file: 349)

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CREATING AND CONDUCTING A REVERSE AUCTION

	Country	Number	Kind	Date
Patent				19

Detailed Description:

CREATING AND CONDUCTING A REVERSE AUCTION

BACKGROUND

[00011] The following description relates to online **bidding** systems, for example, a system and method for creating and conducting a reverse **auction**.

[00021] In electronic commerce, dynamic systems for commercial transactions provide a number of advantages not... ..transactions, as well as the universe of available transactions, may change over time. An online **auction** is an example of a dynamic system. In contrast, a static system is one in... ..example of a static system.

[00031] Conventional dynamic systems for commercial transactions, such as online **auction** sites, generally provide companies or other entities with an efficient avenue for buying and selling goods and services. For example, an **auction** may be opened to a much wider range of participants when conducted online. However, conventional... ..SUMMARY

[00041] The following description teaches systems and techniques for creating and conducting online reverse **auctions**.

[0005] In one aspect, a dynamic **bidding** application enables an initiator, e.g., a potential purchaser of goods and/or services, at... ..initiator site to create objects representing opportunities, such as Request for Quotations (RFQs) and reverse **auctions**. The initiator

can convert an RFQ object into a reverse **auction** object, for example, if the results from the RFQ are not satisfactory. Information in the RFQ object can be copied into a newly created reverse **auction** object. The RFQ object may then be set to a closed status. The information... user-defined attributes.

[00061] Bids received for the RFQ may be copied into the reverse **auction** object. Since attributes may be changed or added in the conversion process, the information in... bids may be validated. If the bids do not include information required for the reverse **auction**, the bid may be marked as incomplete.

[00071] A reverse **auction** based on a reverse **auction** object may be held as a live (realtime) **auction**. If the **bidding activity** exceeds a certain **threshold** at the designated closing time for the reverse **auction**, the reverse **auction** may be automatically extended. The extension period may be for a predetermined time period, or... produce bids that meet expectations, the initiator can convert the RFQ opportunity into a reverse **auction**, which may further drive down the supplier prices. Also, continued **bidding** through an **automatically extended closing time** may further drive down prices. Details of one or more implementations are set forth in... reference to the following drawings.

[00101] FIG. 1 shows a block diagram of an online **bidding** system

[00111] FIG. 2 shows a block diagram illustrating the structure of an opportunity object.

[00121] FIGs. 3 and 4 show a flowchart showing a process... flowchart showing a process for converting a Request for Quotation (RFQ) object into a reverse **auction** object.

[00141] FIG. 6 is a flowchart showing a process for validating a bid copied from an RFQ into a corresponding reverse **auction** object.

[00151] Like reference symbols in the various drawings indicate like elements.

DETAILED DESCRIPTION

100161 The systems and techniques described here relate to online **bidding** systems.

[00171] FIG. 1 illustrates a networked computer system 100. The system may include... initiator, e.g., a potential purchaser of goods and/or services, can use a dynamic **bidding** application to create opportunities on which potential suppliers may place bids. The initiator may be... an automated software process executing without human intervention, or various combinations of both. The dynamic **bidding** application may reside, at least partially, at the initiator site 105 and/or a server 130. The opportunities may include requests for quotations (RFQs) and reverse **auctions**. A request for quotation

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(RFQ) is a solicitation document used by purchasers to obtain... purchasing process. RFQs generally include such information as price, delivery terms, and conditions. A reverse **auction** is an **auction** that uses the bid-down principle, in which the price being bid descends during the **auction** and the lowest bid is the winning bid. In general, the bidders are sellers or... are offering to supply the requested good or service at the bid price. A reverse **auction** can provide buyers with significant cost savings by better leveraging competition among suppliers.

[00191] Opportunities such as RFQs and reverse **auctions** may be represented as objects in the dynamic **bidding** application. The opportunities may share a similar format 200, such as that shown in FIG... and attachments 220. The header may include general information about the opportunity, such as a **bidding** rule profile (described below), classification, terms and conditions, and duration. Line items identify products or... attributes are essentially additional fields that can be used to customize an RFQ or reverse **auction** for the initiator's particular needs or industry. Dynamic attributes can be added to... generating an opportunity.

The initiator first selects an opportunity type, e.g., RFQ or reverse **auction** (block 305).

The initiator may then enter header information (block 310). The header information may include basic information such as a name and classification for... "broken/partial" RFQ profile may support broken lots, in which the supplier can submit a **bid** for any **quantity** of a single line item in the RFQ. A "full/full" RFQ rule profile may... profiles may also define starting and closing dates and times.

[0023] Rule profiles for reverse **auctions** may include rules that allow bidders to bid on full or broken lots and full or partial quantities. Reverse **auction** rules may also define starting and closing date and time, starting prices, and reserve prices. The rules may define a sealed **auction**, in which bidders are restricted from viewing any information on bids already submitted, including the... bidders and whether or not theirs is the leading bid.

[0024] One type of reverse **auction** is a reverse "Yankee" **auction**, in which broken lots and partial quantities are supported. Bidders may submit bids on single line items and are not required to **bid** on the full **quantity** of that item. Bidders can also view all the information associated with other submitted bids, so strategic **bidding** becomes possible.

[0025] In a reverse Yankee **auction**, more than one winner per line item is possible, and each winning bidder pays his or her own bid price. For example, consider a reverse

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Yankee **auction** for one line item with a quantity of one hundred, a start price of \$100 USD, and a close time of 09:30. Three bidders participate in the **auction** as follows.

[0026] **Bidding Activity**

Time Bidder **Bid Price** **Bid Quantity**

09:00 Bidder A \$100 USD 100

09:05 Bidder B \$80 USD 70

09:27 Bidder C \$90 USD 30

09:29 Bidder A \$89 USD 30

End of **Auction**

[0027] In this example, Bidder B would be awarded 70 of the line items at... Bidder A would be awarded 30 at \$89 USD each. Even though Bidder A originally **bid** on the full **quantity**, Bidder A did not want to go lower than the price quoted by Bidder B. So instead, Bidder A placed a **bid** for the outstanding **quantity** at a price that still beat the next lowest bidder, even if only by \$1... 0035] In some instances, it may be desirable to convert an RFQ into a reverse **auction**.

For example, if the RFQ opportunity process does not produce bids that meet expectations, the initiator can convert the RFQ opportunity into a reverse **auction**, which may further drive down the supplier prices.

[0036] FIG. 5 is a flowchart describing an operation 400 for converting an RFQ opportunity into a reverse **auction** opportunity. The initiator may select a reverse **auction** rule profile compatible with the rule profile of the RFQ (block 405). All information in... the header, line items, dynamic attributes, and attachments, may be copied into a new reverse **auction** opportunity. The initiator can modify or add information in the reverse **auction** opportunity (block 410). For example, the initiator may add a dynamic attribute or change a distribution list in the header. Also, if the reverse **auction** rule profile requires starting prices for the line items, the initiator may be prompted to... The technical validation operation 500 determines if the bids are still valid for the reverse **auction**. Any mandatory dynamic attributes in the reverse **auction**

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opportunity are identified (block 505). For each identified mandatory dynamic attribute, the technical validation...

...the bid to satisfy the new dynamic attribute. The initiator may then complete the reverse **auction** object (block 420).

100381 A reverse **auction** based on a reverse **auction** object may be published or held as live **auctions**, which are typically fast-paced and highly competitive. There may be a rule for live reverse **auctions** which **automatically extends** the **closing time** defined in the header in response to **bidding** activity. For example, if bids are coming in at a predetermined, rapid frequency at the scheduled closing time, the **auction** may be extended, thereby enabling continued **bidding**. The continued **bidding** may further drive down prices on the line items. The **auction** may be extended for a predetermined time period, or until the frequency of bids falls...

Claims:

I. A method comprising:

creating a reverse **auction** object having a plurality of components; and copying information from components in a Request for Quotation (RFQ) object into corresponding components of the reverse **auction** object.

2 The method of claim 1, further comprising:

setting an opportunity status for the... ...6 The method of claim 1, further comprising: adding a mandatory attribute to the reverse **auction** object.

7 The method of claim 6, wherein the mandatory attribute comprises a userdefined attribute... ...a bid associated with the RFQ object; and

associating the copied bid with the reverse **auction** object.

9 The method of claim 8, further comprising:

determining whether the copied bid includes... ...attribute.

10 A method comprising:

converting a Request for Quotation (RFQ) object into a reverse **auction** object; and conducting a reverse **auction** corresponding to the reverse **auction** object.

11 The method of claim 10, further comprising:

receiving a plurality of bids at a bid rate; and extending the reverse **auction** past a designated closing time in response to the bid rate exceeding a selected bid... ...frequency of receiving bids.

13 The method of claim 12, further comprising:

terminating the reverse **auction** at a selected time period after the designated closing time.

14 The method of claim... ...comprising:

determining that the bid rate is below a predetermined frequency; and terminating the reverse **auction** in response to the determination that the bid rate is below the predetermined frequency.

15 The method of claim 10, further comprising:

selecting a rule profile for the reverse **auction** object; and conducting the reverse **auction** in accordance with the rule profile.

16 The method of claim 15, wherein said selecting comprises selecting a rule profile enabling **bidding** partial quantities of an item identified in the reverse **auction** object.

13. The method of claim 16, further comprising: selecting a first winning bid... ...an initiator site operative to convert a Request for Quotation (RFQ) object to a reverse **auction** object; an **auction** site operative to host an online reverse **auction** corresponding to the reverse **auction** object; and a plurality of supplier sites operative to transmit bids to the **auction** site during the reverse **auction**.

19 The system of claim 18, wherein the initiator site is further operative to copy... ...wherein the initiator site is further operative to associate a mandatory attribute with the reverse **auction** object.

22 The system of claim 21, wherein the initiator site is further operative to... ..mandatory attribute; and re-submit the bid.

24 The system of claim 18, wherein the **auction** site is further operative to extend the reverse **auction** past a designated closing time in response to bid **activity** exceeding a selected **threshold**.

25 An article comprising a machine-readable medium storing instructions operable to cause a machine to perform operations comprising: creating a reverse **auction** object having a plurality of components; and copying information from components in a Request for Quotation (RFQ) object into corresponding components of the reverse **auction** object.

26 The article of claim 25, further comprising instructions operable to cause the machine... ..to cause the machine to perform operations comprising: adding a mandatory attribute to the reverse **auction** object,.

32 The article of claim 31, further comprising instructions operable to cause the... ..a bid associated with the RFQ object; and associating the copied bid with the reverse **auction** object.

33 The article of claim 32, further comprising instructions operable to cause the machine... ..to perform operations comprising: 5 converting a Request for Quotation (RFQ) object into a reverse **auction** object; and conducting a reverse **auction** corresponding to the reverse object.

35 The article of claim 34, further comprising instructions operable... ..operations comprising: receiving a plurality of bids at a bid rate; and extending the reverse **auction** past a designated closing time in response to the bid rate exceeding a selected bid... ..instructions operable to cause 16 the machine to perform operations comprising: ending the reverse **auction** after a selected time period after the designated closing time.

38 The article of claim... ..further comprising instructions operable to cause the machine to perform operations comprising: ending the reverse **auction** in response to the bid rate falling below a selected frequency.

39 The article of... ..the machine to perform operations comprising:

10 selecting a rule profile for the reverse **auction** object; and conducting the reverse **auction** in accordance with the rule profile.

40 The article of claim 39, wherein the instructions... ..to select comprises instructions operable to cause the machine to select a rule profile enabling **bidding** partial quantities of an item identified in the reverse **auction** 5 object.

41 The article of claim 40, further comprising instructions operable to cause the... ..than the first price.

42 A method comprising: 1. A method comprising:

creating a reverse **auction** object having a plurality of components including a header component, a line item component, and... ..component in a Request for Quotation (RFQ) object into the header component of the reverse **auction** object; copying information from a line item component in a Request for Quotation (RFQ) object into the header component of the reverse **auction** object; copying information from an attribute component in a Request for Quotation (RFQ) object into the header component of the reverse **auction** object; setting an opportunity status for the RFQ object to a closed status; adding a mandatory attribute to the reverse **auction** object; copying a bid associated with the RFQ object; 10 associating the copied bid with the reverse **auction** object. determining whether the copied bid includes information satisfying the mandatory attribute; and selectively designating...

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PCT FULLTEXT

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	Country	Number	Kind	Date
Patent				19

English Abstract:

...processed simultaneously and displayed as a continuously updated real-time chart (800) depicting the exchange **auction** process. The chart (800) is formed by plotting each trade at the price traded, and...

Detailed Description:

...plotted a line 2 1 0 showing an aspect of a security, such as daily **closing** price, over an **extended interval**. For another example, Fig. 3 depicts a bar chart 3 00. Each bar, such as... ...shown in Fig.

5. The depth-of-market display 500 includes separate tables listing a **number** of pending **bids** (advertisements to buy) 5 1 0 and pending offers (advertisements to sell) 5 1 2 at their... ...that a transaction has occurred at a particular price and noticing a change in the **number** of units **bid** or offered at that price.

Fig. 6 depicts the display 600 of a security charting... ...and its participants. As noted earlier, trading of securities involves buyers and sellers in an **auction** process whereby trading prices are discovered and trades are executed between the parties. Trading usually... ...i 0 such group of trades may be logically grouped and considered to be an **auction** event within the trading day. An **auction** event, or series of trades around a price point, register elapsed times which vary randomly... ...on participant activity, before a significant change in price point is discovered and a new **auction** event starts.

In the course of a trading day many short **auctions** can occur in the continuing process of making a market and balancing supply and demand... ...parameters of the display and analysis system, such as the criteria for when a new **auction** is deemed to begin, or the criteria controlling when an echoic indicia is provided. The... ...workstations may provide three primary displays regarding a selected security.

a TICKFLOW display, and optionally, **auction** summary and **auction** set displays. The term "TICKFLOW" is a trademark of Tradegraph, L.L.C.

According to... ...known as the book or depth-of-market (DOM) for a security, lo showing the **quantity** ordered at each **bid/ask** price **level**. By integrating a live DOM allowing a trader to enter orders by clicking on displayed... ...of the invention, the chart can be further filtered to group trades into self-creating **auction** events, depending on user-selected or predetermined criteria based on the number of sequential buyer or seller trades, quantity traded, and change in the traded price, or other **auction** criteria as may be applied. **Auction** events can then be recorded and displayed as bars on a separate **auction** chart where the bars show the low to high price range lo and volume weighted average price for trades grouped into each specific **auction** event. The TICKFLOW display identifies the time at which each **auction** begins.

According to a further aspect of the invention, if a facility to determine **auction** events is provided, an **auction** summary chart may be provided to display **auctions** for a selected security.

The **auction** summary chart uses a bar chart format where every bar marker indicates the price range of each **auction** event, and the dot on an **auction** bar marker indicates the volume weighted average price (VWAP), modal price, or other derived characteristic determined for each **auction**.

Once each **auction** event ends, a filter processes statistics derived from the **auction** event and a score, called a Trend Status Value (TSV) score is calculated and assigned to the **auction** and noted above the box drawn over the **auction** bar. A positive score tends to indicate support for increasing price, and a negative score tends to indicate support for decreasing price. **Auction** events and their TSV scores are analyzed to detect trends or "**auction** sets", which are delimited by a reversal in the TSV score. A box is drawn around the **auctions** belonging to a particular **auction** set to identify them. The TSV scores are also graphically displayed as small bars at the top of the **auction** summary chart marker making it easy for traders to detect the strength, direction and reversal... ..change trends.

According to a further aspect of the invention, if a facility to determine **auction** events is provided, an **auction** set display may be provided to graphically summarize a series of **auction** sets. When a trend reversal is detected and a new **auction** set started, the previous **auction** set is summarized and drawn as a single bar on the **auction** set chart. A dot is placed on the **auction** set bar at the VWAP price point calculated for the **auction** set.

According to a further aspect of the invention, the security market and trade information... ..rendition of a "depth of market" window, a prior art method of displaying bid and **offer** prices, and the **number** of units offered at such prices, for a security; Fig. 6 is a rendition of... ..trader workstation of the system 700 of Fig. 7, showing details of individual security transactions, **auctions**, and market depth information;

Fig. 9 is a rendition of an **auction** summary chart of the type produced by the trader DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS...invention, the trade may be plotted according to a process whereby trades are grouped into **auctions**, as described below in greater detail in connection with steps 1126 When trades are grouped into **auctions**, the horizontal axis represents time in a modified sense--that is, **auctions** are plotted left-to-right in time order, but within a single **auction**, the left-to-right order of plotted transactions conveys no information regarding the time at... ..communication additive to help traders sense market intensity, similar to trading in the live io **auction** pits still used in futures trading. As with visual icons, echoic representations offer a variety... ..aligned with the price axis of the chart. A first column 824, lists the total **number** of contracts **bid** or ask at the adjacent price displayed on the chart's price axis. A second... ..as buyers deplete the securities offered for sale. Similarly, a trader can observe if the **quantities** corresponding to **bid** prices are reduced if most of the orders are from sellers. As the quantities in... ..a further aspect of the present invention, sequential trades may be organized into groups called **auction** events, which are established using lo filter criteria. Before discussing the mechanism by which the system organizes trades into **auction** events, it may be helpful to consider the relevance of **auctions** in security trading.

The **auction** mechanism used by exchanges has traditionally involved face-to-face meetings of parties, for example... ..other how much and at what price they will trade a security. In the traditional **auction** process, each trader can see if other traders are buying or selling and who is... ..points. Each such group of trades may be logically grouped and considered to be an **auction** event within the trading day.

An **auction** event, or series of trades around a price point, register elapsed times which vary randomly... ..on participant activity, before a significant change in price point is discovered and a new **auction** event starts. In the course of a trading day many short **auctions** can occur in the continuing process of making a market and balancing supply and demand... ..best available price for orders entered as market orders. The matching process is still an **auction** involving price discovery and trade execution, however, electronic **auctions** are not face-to-face in the traditional sense and the identity of buyers and... ..to a further aspect of the present invention, system 700 may filter sequential trades into **auction** groups such as group 828. A color bar along the bottom axis of the TICKFLOW chart

800 indicates which transactions are part of one logical **auction** event. Within an **auction** event, each triangular icon representing a transaction, or 'ticle', is plotted across from the price at which the transaction is executed in the left-most available column within the **auction** for the price. If previous icons already use all of the plot space within an **auction** for a given price, then the **auction** is expanded to the right to add a new column space for the current transaction... ..plot the current tick over or under a previously plotted tick as long as the **auction** event continues, and a column 830 in the **auction** is available for the transaction price.

Before each transaction is plotted, filter criteria are tested to determine if the current transaction, or tick, satisfies the criteria to start a new **auction**. The goal of the **auction** event filter criteria is to group sequential transactions based on the measures of supply and... ..of applying the filter criteria to determine whether a transaction is part of a new **auction** event is depicted in Fig. 1 1 B, steps 1 1 26-113 6, described further below. By using a filter to group transactions into **auction** events, traders can observe clusters of trading activity instead of focusing on the purely sequential... ..direction of some minimum number of price increments to separate groups of trades.

By creating **auction** events to logically group sets of transactions, system 700 is able to create a display... ..in an open outcry trading pit, or post, and interacting with other traders directly. Each **auction** is, in effect, the presentation of the action that would otherwise occur in a trading... ..and before a new equilibrium point, or "fair" price, is determined from which a new **auction** will eventually originate. By effectively simulating the open outcry trading pit, the system described herein... ..to establish supply/demand reference points.

According to an aspect of the present invention, an **auction** event is defined by criteria that specify the number of consecutive trades of the same order initiation type within the **auction** group, or a trade with a quantity greater than a pre-determined size that is coincident with a change in price of a specified magnitude, or other **auction** criteria as may be applied. The **auction** criteria is designed so that a user can modify the filter values according to the... ..being traded in order to identify clusters or groups of trades that represent short logical

auction events during the otherwise continuous stream of transactions.

The assumption of the above criteria is... ..1 126-113 6 are used to determine whether a particular trade begins a new **auction** or is added to an existing **auction**. In steps 1 126 and 1 128, a transaction is tested against two **auction** event criteria. A first criterion determines whether the trade is the Nth consecutive trade of... ..been a price change since the prior Universal Data Structure was received, then a new **auction** event is started, and the icon corresponding to the current trade is plotted in the new **auction**.

Although step 1 126 is described herein as employing two separate criteria tests to determine the end of one **auction** event and the beginning of another **auction** event, any number of criteria could be used, as appropriate to effect the result of... ..connection with step 1 126 are believed to be useful in identifying the boundaries of **auction** events, different criteria could also be used.

In step 1 130, if a trade does not cause the beginning of a new **auction** event, then control jumps to step 1 136, where the trade is plotted at the first available space in the current **auction** event that corresponds to the price level of the trade. Thereafter, control jumps to step... ..126 and 1 128, a trade is evaluated as the beginning of a new **auction** event, and the criteria used is the number of sequential trades of the same order initiation type, then a special process is begun to complete the previous **auction** event. In that case, step 1130 is executed and prior trades are reviewed as in step 1130 to determine if they should remain in the previous **auction** event, or should be included at the beginning of the new **auction** event with the current trade. For example, if **auction** event filter criteria is set to ten consecutive trades of the same order initiation type... ..make up part of the sequence of trades that determined

the beginning of a new **auction** event are moved into the new **auction** event along with the current trade.

If a new **auction** event is started because the criteria used is a large trade at a new higher... ..lower price point, then the current trade will be the first trade of the new **auction** event and all prior trades remain in the preceding **auction** event.

In step I 1 32, once all trades are determined for a completed **auction** event, then statistics kept for the just completed **auction** event are calculated, including total quantity traded and the high, low and volume weighted average prices of the **auction**. The process 1200 of determining trend status values and other statistics for an **auction** event is shown in Fig. 12 and described further in greater detail. Totals are also calculated for the quantity traded during the **auction** event based on orders initiated by buyers and the quantity traded based on orders initiated... ..the quantity traded by buyers was greater than the quantity traded by sellers, then the **auction** event is coded with a horizontal bar (e.g. 830) of a first color (e... ..the quantity traded by sellers was greater than the quantity traded by buyers, then the **auction** event is coded with a horizontal bar of a second color (e.g. red) at... ..the same time, a blue or red colored vertical bar 910 is drawn on the **auction** chart (see Fig. 9).

Once a trade has been evaluated and determined to be part of a new **auction** event, and the subsequent evaluation is made using the Trend Status Value (TSV) score, defined further 30 below, to determine if a completed **auction** event should be included in a current or new **auction** set, the trade is processed (step 1 1 34) as part of a the new **auction** event that is indicated with a time stamp 828 and a horizontal bar 832 along... ..the TICKFLOW chart 800 (Fig. 8).

According to a further aspect of the present invention, **auction** events may be plotted in an **auction** summary chart 900 (Fig. 9) and an **auction** set chart I 000 (Fig. 1 0). The **auction** summary chart 900 uses a bar chart format where every bar 91 0 indicates the price range of each **auction** event, and the dot 912 on the **auction** bar indicates the volume weighted average price (VWAP) determined for each **auction**. Once each **auction** event ends, a filter processes statistics derived from the **auction** event and a score, called a Trend Status Value (TSV) 914, is calculated in accord with method 1200 (see Fig. 12) and assigned to the **auction** and noted above the box 918 drawn over the **auction** bar. If the TSV score is positive, it is displayed as a number in a... ..TSV scores are also graphically displayed as small bars 916 at the top of the **auction** summary chart, making it easy for traders to detect the strength, direction and reversal of price change trends.

Auction events are grouped into sets based on TSV scores. Generally, **auction** sets are determined when sequential TSV scores assigned to **auction** events change from negative to positive, or from positive to negative. **Auction** sets, as displayed on the **auction** summary chart, have lines drawn around them to form a box 918. For each **auction** set, a volume weighted average price (VWAP) is determined, which is indicated as a line 920 drawn across the **auction** bars used in the calculation, and as also displayed on the TICKFLOW chart 814 (Fig. 8).

Multiple volume weighted average prices can be determined for one set of **auctions** if the trend of an **auction** persists and prices change from the **auction** set origination price, by more than a user specified filter amount. The volume weighted average... ..to use when determining the price point where most of the trading happens within an **auction** set.

The **auction** set chart I 000 (Fig. 1 0) summarizes sets of **auction** events, thereby providing a longer-term view of market trends. Traders use the **auction** set chart to view trading **auctions** that span minutes, hours, days and weeks.

Fig. 12 is a flow diagram depicting a... ..in conjunction with the system 700 of Fig. 7, for assigning trend status values to **auction** events. In step 1210, the current 30 **auction** event is evaluated to determine if the completed **auction** event indicates support for a positive, upward trend, or indicates pressure for a negative, downward trend in exchange security prices. Summary trading statistics of market data and **auctions** as are used as input data for this

step. In step 1212, the **auction** event data is evaluated. The evaluation is based on a process using multiple filter criteria... first criteria (TSV1) tested checks whether or not more of the trading volume within an **auction** event is from orders initiated from buyers or from orders initiated from sellers. The assumption is that the largest volume of trading is a significant factor within an **auction** event.

This is true because as buyers take out sellers, or vice-versa, the inventory... greater than the volume weighted average price (VWAP) of the futures trades in the current **auction** set, which is comprised of the sequential **auction** events prior to the current **auction** event and having similar positive or negative TSV trend scores. The third criteria checks to... cash market is also greater than the VWAP of the futures trades in the current **auction** set. These tests indicate if the cash market is either above or below the VWAP of recent futures trading, as defined by the current **auction** set. The assumption is that prices in the futures market are tied to prices in... ask orders from sellers is greater than the VWAP of the trades in the current **auction** set. The fifth criteria checks to see if the VWAP of the bid orders from buyers is also greater than the VWAP of the trades in the current **auction** set. These tests indicate if the depth-of-market orders are either above or below the VWAP of recent trading, as defined by the current **auction** set. The assumption is that the VWAP of the current **auction** set serves as a good benchmark price for recent trading, and if the VWAP of... trend is occurring.

The sixth criterion compares the VWAP prices from the current and previous **auction** sets and the seventh criterion compares the VWAP prices from the current and previous **auction** events. These tests indicate, on a sequential basis, that the prices of the current **auction** set and the current **auction** event are either above or below the prices of the proceeding **auction** set and the proceeding **auction** event. The assumption is that the VWAP prices of the current and prior **auction** set, and current and prior **auction** event, are directly comparable, and if the current prices are above or below the prior... downward directional price trend.

The final eighth criterion compares the VWAP price from the current **auction** event with the VWAP price of the current **auction** set. Similar to the sixth and seventh criteria tests, the assumption is that if the VWAP price of the current **auction** event is above or below the VWAP price of the current **auction** set, then the recent price point established by the **auction** event when compared to recent trading as defined by the current **auction** set is another confirmation of a corresponding upward or downward directional price trend.

In steps... TSV score is determined by adding together the values assigned by each criteria test, the **auction** event TSV is compared to the TSV for the previous **auction** event. If the current **auction** event TSV score is positive and the prior TSV score is positive, or the current **auction** event TSV score is negative and the prior TSV score is negative, then the current **auction** event is a continuation of the trend. Execution continues in step 1220, and the **auction** event is grouped in with the prior **auction** events as part of what is called an **auction** set. **Auction** sets are simply groups of consecutive **auction** events that have occurred since the last change in positive or negative direction of the TSV score.

If the TSV score of an **auction** event represents a reversal from the previous TSV **auction** event TSV score, such as a positive TSV score followed by a negative TSV score, then the current

auction event TSV score indicates the beginning of a new **auction** set and a change in the directional trend based on the TSV indicator. In that case, execution continues with step 1218, and a new **auction** set is created.

On the **auction** summary chart 900 (Fig. 9), **auction** sets are shown with a box 918 drawn around the **auction** events grouped into the **auction** set. In the **auction** set box a vertical bar (e.g., 910) is drawn for each **auction** event in sequential order from left to right and plotted from the high to the low trade price during the **auction** event. A dot

(e.g., 912) is placed on the **auction** event bar at the VWAP price point calculated for the **auction** event. The bar is preferably presented in a first color (such as blue), if the... ..traded initiated by sellers is greater than the quantity traded initiated by buyers.

Over the **auction** event bar and above the box drawn for the **auction** set is displayed the number 914 representing the TSV score, with a number in the... ..TSV score is also graphically displayed as a bar 916 at the top of the **auction** summary chart with positive TSV scores drawn up and negative TSV scores drawn down from... ..zero TSV score axis line.

One or more VWAP prices may be calculated for an **auction** set and displayed as a horizontal line 920 drawn across the **auction** event bars included in the VWA-P calculation. Multiple such VWAP price lines are drawn for an **auction** set if the price changes by more than a specified filter amount within the **auction** set.

In step 1218, when a trend reversal is detected and a new **auction** set started, the previous **auction** set is summarized and drawn as a single bar 1 0 1 0 on the **auction** set chart 1 000 (see Fig.

4). A dot 10 12 is placed on the **auction** set bar 1 0 1 0 at the VWAP price point calculated for the **auction** set.

The grouping of trades into **auction** events, and the related grouping of **auction** events into **auction** sets based on the identification of TSV scores, is a powerful feature. The filtering criteria... ..to flexibly adjust to different securities and different markets in order to compensate for varying **levels of activity** and price volatility between different markets. Once specified, the filtering criteria help the trader identify... ..in an open exchange, making it easier to detect directionally biased trading.

By reviewing the **auction** event summary chart 900 (Fig. 9) a trader can quickly see the duration of a positive or negative trend by the number of **auction** events displayed within an **auction** set, as indicated by the width of the boxes drawn around each **auction** set. If **auction** sets are of longer duration, then the trends represented by the **auction** sets are clearly the result of directionally biased trading, either up or down. Further -more, a trader can quickly see the magnitude of a trend by the height of an **auction** set box, which represents the range of the price change during the trend. If the height of the **auction** set box, representing the price range in the **auction** set, is greater than average, then the **auction** set indicates strong directionally biased trading.

The strength of a trend, as expressed by the width and height of **auction** set boxes, is further defined by the TSV scores that a trader can quickly review along the tops of the boxes on the **auction** summary chart. If TSV scores are near zero, the strength of the trend is not... ..occurring. The convenient bar chart representation of the TSV scores along the top of the **auction** summary chart clearly indicates trend strength and duration.

Equally important as identifying the strength of... ..if no clear directionally biased trading is evident. This can be clearly seen on the **auction** summary chart 900 (Fig. 9) if many short **auction** set boxes are drawn, or if **auction** set boxes are proportionately flatter than taller. This indicates either many trend reversals are occurring... ..a trader to increase their probability to profit from buying low and selling high.

The **auction** set chart 1 000 (Fig. 10) summarizes trading activity over a greater period of time... ..view of the frequency and magnitude of trend reversals, and the cumulative result of the **auction** trends as represented by bars for each **auction** set. By examining the time stamps along the bottom of the **auction** set chart, a trader can evaluate the elapsed time between **auction** sets and see if directionally biased trends have significant duration. By viewing the height of the **auction** set bars and the VWAP price point shown by the dot on the **auction** set bars, a trader can determine if positive trends have a greater affect on trading... ..relatively greater trading opportunities and decide if the current trend as shown by the current **auction** set is a good time to make a trade.

Knowing the right time to make... ..used by technical and academic analysts by measuring and evaluating market participation through the exchange **auction** process, and thereby focusing on the element of human participation in the exchange process that... ..indicating order flow from buyers and sellers, coupled with the result of grouping transactions into **auction** events based on the transaction variables of price and quantity, instead of elapsed time. The... ..military procurement, healthcare, travel reservations, transportation logistics, supply chain systems, retail stores, and on-line **auctions** and exchanges.

The above-described embodiment of the invention is merely one example of a...

Claims:

...wherein said trader workstation is further adapted to group said trades into one or more **auction** events, the trades in each **auction** event being related to one another as determined by user-selectable criteria, and wherein for each of said **auction** events, said indicia corresponding to all trades grouped into such **auction** event are displayed adjacently.

3 The system of claim 2 wherein said trader workstation is further adapted to display an indicium identifying the beginning of each **auction** event of which a displayed trade is a member.

4 The system of claim 3... ..method of claim 5 further comprising the step of grouping said trades into one or more **auction** events, the trades in each **auction** event being related to one another as determined by user-selectable criteria; and wherein said... ..first axis representing trade price and a second axis representing time of initiation of an **auction** event.

8 The method of claims 6 or 7, wherein said order book information includes... ..transaction information was seller-initiated or buyer-initiated; grouping said trades into one or more **auction** events, the trades in each **auction** event being related to one another as determined by user-selectable criteria; displaying for each... ..having an appearance distinguishing between buyer-initiated and seller-initiated trades, wherein for each of said **auction** events, the indicia corresponding to all trades grouped into such **auction** event are displayed adjacently; and displaying an indicium identifying the beginning of each **auction** event of which a displayed trade is a member. IO. The method of claim 9, further comprising the step of determining, for each of said **auctions**, a trend status value describing the trades of such **auction**, said trend status value being responsive to whether volume of said trades determined to be... ..The method of claim 9, further comprising the step of determining, for each of said **auctions**, a trend status value describing the trades of such **auction**, said trend status value being responsive to a comparison between a bid price of said selected security and a volume-weighted average price of the trades of such **auction**.

12 The method of claim 9, further comprising the step of determining, for each of said **auctions**, a trend status value describing the trades of such **auction**, said trend status value being responsive to a comparison a volume-weighted average price of the trades of such **auction** and a bid price in a cash market for a security underlying said selected security... ..The method of claim 9, further comprising the step of determining, for each of said **auctions**, a trend status value describing the trades of such **auction**, said trend status value being responsive to a comparison between a volume-weighted average price of the trades of such **auction** and the volume-weighted average price of outstanding bid orders.

14 The method of claim 9, further comprising the step of determining, for each of said **auctions**, a trend status value describing the trades of such **auction**, said trend status value being responsive to a comparison between a volume-weighted average price of the trades of such **auction** and the volume-weighted average price of outstanding ask orders.

15 A method for use... ..method of claim 15 further comprising the steps of grouping said trades into one or more

auction events, the trades in each **auction** event being related to one another as determined by user-selectable criteria; and providing a sound cue corresponding to initiation of a new **auction** event.

17 A method for providing security exchange information to traders, comprising the steps of... ...a listing directly next and integral to the vertical axis of the chart displaying the **quantities** of **bid**/ask orders at the prices corresponding to the price scale of the vertical axis.

23... ...the method in claim 17, including calculations for the total quantity of trading during an **auction** event and the total quantifies of buyer and seller initiated trading during an **auction** event, and the ratio of the quantities of buyer to seller initiated orders, and similar... ...quantity of orders in the depth-of-market book of outstanding orders, and the total **quantities** of **bid** and ask orders in the depth-of-market book of outstanding orders, and the ratio of the **quantities** of **bid** and ask orders, and the derivative ratio of the buyer/seller initiated orders ratio to... ...or similar symbol along the horizontal time axis to indicate separation and time duration of **auction** events based on groups of trades determined from predefined filters for the number, direction, magnitude... ...29, and including the additional steps of:

displaying additional charts to present summaries of trading **auctions**, said chartscomprising:1) **auction** events displayed as vertical bars on a separate **auction** chart where the vertical axis is for price, the horizontal axis is for time, and the **auction** bars show the low to high price range, and volume weighted average price for trades grouped into an **auction** event, and the **auction** event bars are coded as blue or green if the quantity of buyer initiated orders was greater than the quantity of seller initiated orders or the **auction** event bars are coded as red, orange, or purple if the quantity of seller initiated orders was greater than the quantity of buyer initiatedorders; and2) an additional **auction** chart is displayed where the vertical axis is price, the horizontal axis is for time, and vertical bars representing the low to high price range for sets of sequential **auction** events that are grouped together into larger **auction** sets covering more time based on pre-specified filter criteria to coincide with logical reversals...
...ofgenerating trend scores known as trend status values (TSV's), or similar name, by filtering **auction** event values with multiple criteria to determine the direction and magnitude of an overall price trend during an **auction** event as being either upward, downward or neutral , wherein by considering said display screen of said trading and **auction** chart(s), said plotting of iconic shapes and iconic attributes, said integrated list of bid...

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	Country	Number	Kind	Date
Patent				19

Detailed Description:

...embodiment of the present invention;

Figure 43A is a flowchart of a process for an **auction** function utilizing a network-based supply chain management framework in accordance with an embodiment...of the present invention; Figure 107 is a flowchart of a process for a reverse **auction** in a supply chain management framework in accordance with an embodiment of the present invention...an embodiment of the present invention; Figure 121 is a flowchart of a process for **auctioning** surplus products in a supply chain management framework in accordance with an embodiment of the...select reports for viewing;
Figure 170 illustrates a Print button;
Figure 171 depicts a Print **Bid** button;
Figure 172 is a flowchart of a process for proposal reporting utilizing a supply...Chain users to develop/evaluate analytical/operational tools.

Web Architecture 122-underlying all this electronic **activity** is technology, the web architecture with Internet access (through proprietary service or an Internet Service...which Supply Chain management (coordinator) can take immediate action. Such performance information includes system inventory **levels** and movement, ordering **activity**, order fill rates, on-time deliveries, and product quality issues. Note that the supply chain...1 5 Figure 35 illustrates a distributor ranking report 3500 that provides statistics on the **number** of orders filled, on-time deliveries, and perfect orders delivered, and whether they met the...source of revenue. Potential sources can be utilities, office products, computers, and equipment. Providing an **auction** service can also create revenue.

A preferred embodiment of the present invention utilizes one or...required for the advertising.

Figure 43A is a flowchart of a process 4330 for an **auction** function utilizing a networkbased supply chain management framework. Data is received via a network from...table lists all of the VOCs collected at each workshop, and places them into high **level** categories.

Table 7

Supplier

Voice of the Customer SCC Member Distributor

I. Securely isolate data...utilizing the data.

Figure 107 is a flowchart of a process 10730 for a reverse **auction** in a supply chain management framework. Data is received in operation 10732 from a plurality...the network includes the Internet.

Figure 121 is a flowchart of a process 12100 for **auctioning** surplus products in a supply chain management framework. Utilizing a network, data is received from...based interface. In another aspect, the network includes the Internet. In a further aspect, the **auctioning** may be initiated in response to one of the outlets closing.

Figure 122 is a...

Claims:

...the users access the data utilizing the network-based interface.

77 A method for an **auction** function utilizing a network-based supply chain management framework, comprising:a) receiving data from a...bids on the goods from the users utilizing the network.

78 A system for an **auction** function utilizing a network-based supply chain

management framework, comprising:a) logic for receiving data...activity in the products supply chain utilizing the data.

81 A method for a reverse **auction** in a supply chain management framework,
-comprising:a) receiving data from a plurality of stores... ..as a function of time during a predetermined duration.

82 A system for a reverse **auction** in a supply chain management framework,
comprising:a) logic for receiving data from a plurality...a location of the products utilizing the data and the forms.

133. A method for **auctioning** surplus products in a supply chain management framework, comprising:a) receiving data from a... ..data accessible to the outlets, distributors, and suppliersutilizing a network based interface; andC) **auctioning** surplus products from at least one of the outlets utilizing the network-based interface. 134. A system for **auctioning** surplus products in a supply chain management framework, comprising:a) /, logic -for receiving data from... ..to the outlets, distributors, andsuppliers utilizing a network based interface; andC) logic for **auctioning** surplus products from at least one of the outlets utilizing the network-based interface. 135...

11/K/31 (Item 4 from file: 349)

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	Country	Number	Kind	Date
Patent				19

Detailed Description:

...easily submit a project to those vendors who would be qualified or most interested in **bidding** on the project.

The private marketplace users describe projects, preview the posting of the project...1012 for completion of the project and to enter the end date 1014 of the **bidding** period.

Figure 1 1 is a preferred embodiment of the user interface for requesting quotes...This page 2202 includes a project description area 2204, an upload area 2206, and a **bidding** area 2208.

These areas contain user prompts 2210 and areas for the user to enter information 2212 based on these prompts 2210. In the **bidding** area 2208, the user may select a marketplace

17
for the project. The user may... ..to customize the prompts 2210 in the project description area 2204, upload area 2206, and **bidding** area 2208. The wizards 2214 vary by category 2216 and subcategory 2218. By activating a... ..2404, the category 2406 and subcategory 2408, the initial estimate 2410 for the project, the **number** of **bids** 2414 made on the project, the amount of the average bid 2414, the time left...Next, the seller browses 2708 the listed projects. The seller may then participate in an **auction** for a project by **bidding** 2710 on that project. The buyer chooses 2712 one or more winning sellers, and these... ..project, the buyer and seller may work and communicate 2716 in the workspace 2000.

The **auction** may be a regular RFP **auction** or a Dutch **auction**. In a regular **auction**, the buyer specifies the **bidding**

duration, and then sellers may bid on the project. Unless the buyer **extends** the **bidding duration**, the **auction** automatically **closes** when this duration is reached. In a Dutch **auction**, the buyer chooses more than one seller to perform the service.

In a preferred embodiment... ..diagram of the commodity process. For commodity services, buyers do not need to run an **auction**. The seller offers services for purchase by specifying

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category, price, quantity, availability, turnaround time... ..the application 1904 proactively alerts the market participants to relevant events, such as whether the **auction** for a project has closed, whether the seller has accepted or declined a project, and...will realize the importance of

21

developing a positive reputation in order to win more **auctions** and also increase their pricing. The reputation they develop will also dissuade venders from doing...

Claims:

...to the private marketplace by the
private marketplace owner; at least one vendor, the vendor **bidding** on a project posted by a buyer, wherein the buyer accepts the bid of the...

11/K/32 (Item 5 from file: 349)

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	Country	Number	Kind	Date
Patent				19

Detailed Description:

...traded.

For Internet based messaging systems such as instant messaging systems, BBS's, chat rooms, **auction** rooms etc, a user is required to "log in" to the server hosting the same... ..is time consuming and cumbersome. Where the BBS is set up for trading, or for **auctioning**, the time delay between making an offer, or a bid, acceptance of that offer or...service that is the subject matter of the transaction.

Preferably, the commercial transaction is an **auction** and the message is concerned with a bid at the **auction**.

Preferably, the prescribed action comprises invoking a routine on the host server associated with personal... ..are

schematic diagrams showing generally how a user can register

. I

with the trade and **auction** service application;

10 Figure 8 is a schematic diagram showing generally how a user can receive notifications concerning his bids and submit further bids in the trade and **auction**

service application;

Figure 9 is a sample discussion board for an **auction** format service

Figure 10 is a flow chart of the discussion process with wireless clients associated

15 with the **auction** service format;

Figure 11 is a schematic diagram of the messaging system and the interaction of wireless clients with the host server in the **auction** service format;

Figure 12 is a sample discussion board for a personal service associated with...however, will be limited to describing the application of the invention to a trade and **auction** service with reference to 0 Figures 5 to 8.

When the UIN in a message packet received from a client indicates that the message is concerned with the trade and **auction** service provided by the host server 15, an **auction** server application 111 on the host server is invoked.

5

The **auction** server application 111 essentially comprises a registration handling means (registration handler), a message... ..a message receiving means (message receiver), a unique identification number assigning means (UIN assignor), an **auction** database means (**auction** database 112), and a trade and **auction** handling means (**auction** handler). These are embodied in the form of program routines that are continuously executed under the control of an operating system in the **auction** server application 111 and thus automate the registration and **bidding** process.

The registration process of a prospective user of the **auction** and trade service is undertaken requiring ...subscriber, in the manner previously described. The message dispatcher and the message receiver of the **auction** server application 111 communicate directly with the SMSC server system 25 via the... ..send and receive short messages or commands via SIVIS, once the host server invokes the **auction** server application.

In the present embodiment, the prospective user via the computer 113 accesses a registration form made available by the **auction** server application 111 to prospective users of the trade and **auction** service through the host server 15.

The registration form includes fields in which the user... ..requisite fields in the registration form, the prospective user then submits the data to the **auction** server application 111 provided on the host server 15. This can be achieved... ..page for the registration form, where the user can submit the entered data to the **auction** server application 111.

Upon receipt of the essential and optional data from the user's computer 113, the **auction** server application 111 invokes the registration handler.

The registration handler creates a new... ..server 15 to temporarily register the user with the host server for the trade and **auction** service facility provided on the host server. This entry contains prescribed essential and optional data for registration purposes. In the embodiment, the essential data for the trade and **auction** service comprises the user's name, address, an NIN of a messaging-capable wireless device... ..authentication process used in the embodiment.

The authentication process for new users registering with the **auction** server application 1 1 1 is performed by the registration handler. As shown, the registration... ..user has submitted data entered on the registration form to the host server 15, the **auction** server application 1 1 1 takes the user's computer 113 to a further HTML... ..further HTML web page then explains that once the password has been verified by the **auction** server application 1 1 1 , their account will be activated.

The user enters the password... ..15 to identify a user or someone just visiting the URL address corresponding to the **auction** server application 1 1 1. For that session, a cookie, which identifies the user, is... ..that user's account.

Upon receipt of the password, the host server 15 invokes the **auction** server application 1 1 1 to verify that the submitted password is the same as...the UIN extracted from the concatenated number entered as the - 31 recipient's address, the **auction** server application 1 1 1 would be invoked and the message receiver engaged to handle... ..the "sender" field of the SMS message.

In an enhancement to the registration process, the **auction** server application 1 1 1 causes the host server 15 to dispatch a message to... ..by and recognized by the host server 15 as that for registration purposes with the **auction** server application 1 1 1. The numeric access code is used by the SIVISC server... ..subsequently decode the UIN, and upon establishing that the message relates to the trade and **auction** service provided by the host server, then invokes the **auction** server application 1 1 1 whereupon the message receiver is engaged to process the message... ..Once registered, a user is able to browse products and services available for trade and **auction** and to place bids for products and services as described in further detail below. Registered users are also able to place their products for 1 0 trade or **auction** in the **auction** database 112 managed by the **auction** server application 1 1 1.

To add a product or service to the **auction** database 1 1 2, a user submits product data to the host server 15, in... ..that described above for 1 5 submitting registration data. That is, the user accesses the **auction** server application 111 using their computer 115 and accesses an "add new product" HTML web... ..The user then enters product data and submits the product data for entering into the **auction** database 1 1 2 under the control of the **auction** server application 1 1 1. In the embodiment, the following product data is required, some... ..A short description of the product that will appear in lists of products on the **auction** database 1 1 2.

* User Id: -The nickname of the registered user selling the product... ..product entry. If the password is incorrect, the product will not be added to the **auction** database 112.

6 **Auction** Type/Method: The user can specify whether the **auction** is to be conducted as a regular **auction** or as a Dutch **auction**, for example.

0 Item Description: A more detailed description of the item for sale.

0 Country: The seller's country.

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Auction Start Date and Time: The date and time that the **auction** will commence. Bids for items are not accepted before an **auction** commences.

Auction Duration: The length of time the **auction** will last.

0 Category: A broad identification, selected from a list, of the type of uploaded directly from the computer 1 1 5 to the **auction** database 1 1 21 via the internet 19.

Payment Method: The payment method or methods... ..countries that the seller is or is not prepared to ship to, etc.

a Minimum **Bid**: A **threshold** value that sets a minimum value for the first bid.

Bids below the minimum bid value are disregarded by **auction** server application 1 1 1.

0 Reserve Bid: An optional value specifying a price below... ..increment.

* Toggle to use or not use Dynamic Bid Time (optional): This switch tells the **auction** server to extend or not to **extend** the **auction duration** if bids are being received **close** to the end of the specified **auction** duration. When the switch is turned on, the **auction** will be extended until no bids are received for a length of time corresponding to... ..product data submitted by the user is checked for completeness by the

p
30 **auction** server application 1 1 1 and, if the information is complete, the UIN assignor assigns a UIN to the product. The product data and UIN are then stored in the **auction** database 1 1 2.

- 34 When the **auction** commences, bids concerning the product are also stored in the **auction** database 1 1 2.

A user may browse products available for **auction** on the **auction** database 112 using his computer 1 1 5 via the Internet 19. If a user... ..s identity is authentic, the user's bid for the product is accepted by the **auction** server application 1 1 1 and stored in the **auction** database 1 1 2.

0 The user's bid is identified for a particular product... ..for a specific value. An automatic bid specifies a maximum bid by the user. The **auction** and trade handler then acts as a proxy for the user **bidding** by the minimum increment for the product up to the user's specified maximum in an attempt to win the **bidding** for the product by the minimum possible incremental value.

Once the user has registered their... ..and bid up process.

When a user's bid for a product is beaten, the **auction** and trade handler instructs the message dispatcher to send an SMS message to the user's GSM mobile phone 1 1 7. The **auction** and message trade handler retrieves the user's mobile phone number from the user information... ..the message dispatcher to be included as the "recipient" field of the SMS message.

The **auction** and trade handler also forwards the product's UIN to the message dispatcher, which concatenates... ..and inserts the resultant number in the "sender" field of the SMS message.

Finally, the **auction** and trade handler forwards a message text to the message dispatcher for inclusion as the message body of the SMS message. The

message text composed by the **auction** and trade handler includes information concerning the product, such as the product title, the current message, and on recognising that it concerns the **auction** server application 1 1 1, invokes

the message receiver of the **auction** server application.

Upon receiving the SMS message, the message receiver extracts the product UIN from... ..the text message of the SMS 0 message and forwards these to the trade and **auction** handler.

The trade and **auction** handler is able to identify the product from the product UIN.

Further, the trade and **auction** handler can identify the user from their GSM mobile telephone number. In the event that a higher bid has already been received from 5 another user, or the user's **bidding** instructions were indecipherable, the **auction** and trade handler sends a reply SMS message to the user's GSM mobile phone 117 notifying them of the error. Otherwise, the trade and **auction** handler enters the bid from the user in the **auction** database 1 1 2 for that product. Optionally, if the bid is successfully received, the **auction** and trade handler may send a reply SIVIS message to the user's GSM mobile... ..bid was successfully received.

In addition to sending notification to the previously highest bidder, the **auction** trade handler may also be arranged to send the same notifications to some or all... ..the users that have bid for that product.

Now describing an actual example of an **auction** format wireless discussion board between wireless clients that have been registered by the **auction** server application to participate in an **auction** conducted by the host server 15, reference is made to Figures 9 to 1 1.

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As shown in Figure 9 of the drawings, a sample **auction** format wireless discussion board 1 1 9 is shown in a similar format as to the way it would appear on the website of the trade and **auction** service described above.

In the illustrated example, the discussion board 119 specifically pertains to item... ..item number would constitute the UIN for the prescribed action involved with participating in the **auction** of the item itself and "Mikey" 121 is the pseudonym or buddy name of a... ..specific example is a "Nokia 61 1 0" mobile phone.

In this example of the **auction** format wireless discussion board 119, the prospective buyer "Mikey" sends an SMS message from his... ..the manner previously described, authenticating the sender of the message through the agency of the **auction** server application after decoding the UIN, whereupon the requisite message will be entered in the **auction** database and virtually posted to the discussion board 119, enabling the message to be viewed on the **auction** website of the host server that pertains to the particular item.

In the present embodiment, in order to facilitate participation in the **bidding** process by bidders who only have GSM devices and not access to a browser based... ..and users is 23301. All of the users have previously registered with the trade and **auction** service hosted by the host server so the registration process is by-passed.

The process... ..the host server 15 as indicated by box 143, accessing its user information database and **auction** database 112 as appropriate, as represented by 145. This processing will include entering the message on the **auction** database 112 and then actioning a routine which broadcasts the posted message to the top... ..efficient and convenient method and system for the authentication and transmission of instructions for an **auction** and trading system whose users have messaging-capable wireless devices such as SMS-enabled GSM... ..wireless clients, as provided in the present embodiment, generally follow the same

format as the **auction** format wireless discussion board described above in the trade and **auction** service of the commercial transaction application. Accordingly, they can all simply be accommodated by the...the "T" command, similar to the way in which this command is used in the **auction** room scenario 1 5 previously described. Sending this command to the NIN in an SMS...

Claims:

...9 A messaging service as claimed in claim 8, wherein - the commercial transaction is an **auction**, the entity is a product or item that is being auctioned, and the message is concerned with a bid at the **auction** in relation to a specific product or item. - 54

10 -A messaging service as claimed...

11/K/33 (Item 6 from file: 349)

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	Country	Number	Kind	Date
Patent				19

Detailed Description:

...parameter, such as forecast material demand, commodity price forecasts, exchange rate forecasts, industry trends, historical **bidding** data, etc.

Typically the first and second forms of the inventions will be used in... ...MD ISFx) where x indicates a particular supplier X; m indicates that particular supplier's **bid number**; n indicates the overall **bid number** (ie I" **bid**:n=1; 2,d bid:n=2;etc); FB indicates a factored bid for said... ...BOM to the panel who will view and validate the BOM before conducting an online **bidding** event. During the **bidding** event the panel of suppliers will bid against each other for the right to supply... ...used as a service to the buyer and generate a detailed report based upon past **bidding** events to aid with the supplier selection and rating. Basically, the buyer is in control... ...and system of the invention allows the buyer to enter supplier ratings before a particular **bidding** event, these ratings then being modified on an ongoing basis between successive events to reflect a changing relationship between a buyer and the supplier panel members. Once a **bidding** event is complete according to the rules of that event, there is no post-event... ...considerably stronger dynamic to the method than hitherto available. As discussed above, unlike some known **auction** models, which effectively outsource a buyer's supply needs to a third party procurement function... ...an industry accepted code), contestable (multiple approved suppliers), and of sufficient value to justify the **bidding** process.

In summary, the system is commenced by a primary interaction between the buyer computer... ...a higher factor. By continuously reviewing each supplier's rating reports, and by analysing recorded **bidding** data, the buyer is able to

optimise the supplier panel to achieve the best cost saving during the **bidding** event. This process is referred to as 'panel optimisation'.

Via the buyer computer, the buyer... ..inputs such as material requirements forecasts, commodity price forecasts, exchange rate forecasts, industry trends, historical **bidding** data etc) to maximise the potential material cost saving from the active **bidding** process. This process is referred to as 'BOM optimisation' and is discussed later in more... ..has submitted the lowest factored bid to the administrator computer at the completion of the **bidding** time will be declared the winner.

A dynamic contract between the winning supplier and buyer... ..to the above, the invention may involve a 'factored pricing' process, analagous to the factored **bidding** process. Factored pricing allows the buyer to apply factoring before an RFQ or BOM is... ..the invention will typically be used in combination with the first form, to provide a **bidding** system using factored pricing parameters.

The buyer may choose ...The described system provides for users an online environment to prepare for, conduct and review **bidding** for BOMs.

There are three distinct users of this network system - buyers via buyer computers... ..create BOMs, distribute them to the supplier computers of selected suppliers and then watch the **bidding** process take place. At the end of the **bidding** process, the buyer will know they will be buying at the best price from one... ..the administrator computer.

A supplier will be able to participate, via its supplier computer, in **bidding** for BOMs that a buyer has invited them to bid for. Competing suppliers will actively... ..The buyer and their selected suppliers will be able to have access to, and view, **bidding** for a BOM on the administrator computer.

Administrators by operation of the administrator computer will... ..BOM information, or view any active BOMs that may be in the middle of a **bidding** process. The administrator may of course be within the 3o buyer organisation. The administrator computer... ..a status of 'Active. Note that the BOMs will not disappear from this page when **bidding** is complete, but only when the clock turns over to the next day.

From this... ..to view a summary of the BOM, view a bid summary of the BOM if **bidding** has taken place, change the status of a BOM from Active to Draft and check the status of suppliers that have been invited to participate in the **bidding**.

BOM Table

Each row in the table will have details for one BOM only

BOMs... ..current day (24 hour period) or within their activation period prior to the start of **bidding**

BOMs ordered by start bid time

Active BOMs will be displayed in a different colour to those that are not involved in **bidding** at the current time.

User will only be able to select one BOM at a... ..for each BOM.

9 BOM Id (made up of company ID, YYMMDD, BOM ID, version **number**)

0 BOM Start **Bid** Time

0 BOM End Bid Time

0 BOM Starting Price

9 Number of suppliers that... ..bid time. All suppliers that have validated the BOM will be notified by email that **bidding** for the BOM will no longer take place.

d) BOM Supplier Status

Will invoke the...Draft and check the status of Suppliers that have been invited to participate in the **bidding**. In addition, a BOM can be exported to a text file.

BOM Table

Each row... will be displayed for each BOM

BOM Id

BOM Start Bid Date/Time

BOM Opening **Bid**

Number of Invited Suppliers

Number of suppliers that have viewed the BOM

Number of suppliers that... able to view the BOM details and also the Bid Summary to see how the **bidding** process proceeded.

BOM Filters

0 From date

& To date

0 Supplier

0 Category

0 Sub...a status of Validated. Note that the BOMs will not disappear from this page when **bidding** is complete, but only when the clock turns over to the next day.

From this... to view a summary of the BOM, view a bid summary of the BOM if **bidding** has taken place, and submit a bid for a BOM currently in a **bidding** process.

BOM Table

0 ...day (24 hour period)

0 BOMs ordered by start bid time

0 Active BOMs (in **bidding** process at current time) will be displayed in a different colour to those that are not involved in **bidding** at the current time.

0 User will only be able to select one BOM at... successful Bid vs. Time for the selected BOM in the table. In the case that **bidding** has not yet taken place, the graph will be empty.

Onscreen Buttons

a) BOM View... be able to Validate the BOM to confirm their participation or non-participation in the **bidding** process. A confirmation message will be displayed to ensure the supplier is certain they wish to participate in the **bidding** process.

c) BOMExport

In addition to the BOM view, the supplier will be able to... able to view the BOM details and also the Bid Summary to see how the **bidding** process proceeded.

BOM Filters

From date

To date

Buyer

Contract number

BOM ID

BOM Table...Log

This page will display for the buyer or the supplier a summary of the **bidding** process in a table. Available information for buyers is.

Bid Time

Bid Amount

Bidding Supplier

Available information for Suppliers is.

Bid Time

Bid Amount

5. BOM Supplier Status

The BOM Supplier Status page will list Suppliers that have been invited to participate in the **bidding** for a selected BOM.

It will show in table format next to each supplier if... ..expired. The winning supplier is the supplier that has bid the lowest bid before the **bidding** time is over.

(i) No Successful Bids

It may be the case that no bids were made during the **bidding** time. In this case, after the bid time has expired, a message is sent to... ..ii) Winning Bid

The successful bid is the lowest factored bid submitted prior to the **bidding** time expiring.

a) Notify Winning Bidder

A message is sent to the successful supplier.

"Congratulations... ..for your participation."

b) Notif Unsuccessful Bidders

A message is sent to the unsuccessful suppliers.

"**Bidding** has concluded. Unfortunately you have been unsuccessful for

BOM 'X', contract number 'Y', at '24HH... ..0 Account Number

0 Company name

0 Contract start date

0 Contract end date

0 **Volume** transacted (\$) (winning **bids**)

0 Total Transacted fee \$ (ie (transacted \$) x (% fee))

0 Category and Sub Category

0 Contract... ..and Digital Certificates may additionally be used to authenticate users of the application.

9. Factored **Bidding**

As mentioned above, factored **bidding** will allow the buyer to set supply criteria for a particular subcategory of materials. Each... ..particular supplier to be.

The price criteria will not usually be used to factor the **bidding** amount.

The factor is calculated by firstly determining the maximum score that a supplier can... ..critical to Dunlop, as the

factor is used to scale Dunlop's bid during a **bidding** event. . Dunlop may pay the price for low scores on quality, service etc by finding... ..an input to the supplier rating process.

An example algorithm for carrying out the factored **bidding** process is described below.

The following terms are used.

Term Definition Value Range

SB Submitted... ..It bid, 2 d bid where $n = 1, 2, \dots, n > 1$

in Individual supplier **bid number** in

X SupplierX

Bidding Logic

$FB_n = SP$

This merely states that the first (calculated) factored bid should also equate... ..factor. This formula ensures that the rules of

decreasing bids hold for running a reverse **auction** based on the Factored

Bid. The case for $SF = 1.0$ simply means that the...always factored and may . result in them making an uncompetitive

bid. The premise of factored **bidding** is that suppliers with higher ratings can bid higher amounts than those with lower ratings... ..this equation ensures that the relative difference between suppliers is maintained at all levels of

bidding. This reflects associated fixed cost differences such as freight, that are payable irrespective of the... ..are quoted FOB (Free On Board) for example.

In the system developed using the factored **bidding** technique, the following points apply.

All the above calculations are performed to at least six... ..supplier's logged in.

10. Time extensions - Best and Final Price

In general, an online

bidding event is run for a fixed period of time (such as thirty minutes). At the... ..can be made.

For the above reasons, it is possible to include in certain online **auctions** the function of an automatic extension of the event duration, if a bid is received... ..extension capability is particularly useful with high value, strategic materials where significant shifts in the **bidding** activity can occur in the final stages of an online event.

The time extension, which... ..option has been selected will appear on all screens containing the market rules of the **bidding** event.

A further parameter is required to indicate when the time,extension is to be activated, the <ACTIVATION PERIOD>. This is the time prior to the close of **bidding** in which a submitted bid causes the event to be extended by one extension period... ..MAXIMUM NUMBER OF PERIODS>, which has a default value of <NONE> displayed. The bid **extension time extends** from the <BID END TIME> of the original to the current **end time** of the current **extension period**.

The original <BID END TIME> appears on the screen in its standard form, and in order to indicate that... ..the total number of minutes for all the extension periods that have been triggered.

The **bidding** logic should operate as follows when the time extension ...activated for a particular BOM.

If a bid is submitted within the activation period, the **bidding** event continues for an amount of time equal to the extension period.

The "Time Remaining... ..from the extension period.

A suitable indicator should make clear to the user that the **bidding** event is into the extension period. The normal **bidding** logic in terms of current bid to win, minimum decrement and factored bid should apply to the time extension period.

As explained above, in an online **bidding** event the best price may not be achieved, due to suppliers being unable to submit... ..systematic approach, wherein suppliers who have submitted a bid during the course of the normal **bidding** event are given the opportunity to submit a 'best and final bid' (BAF) once the... ..is -as follows.

0 Only suppliers who have submitted bids during the course of the **bidding** event are eligible to submit a BAR

0 The buyer is able to determine how... ..example, the three suppliers with the lowest factored bids at the end of the normal **bidding** time may be eligible.

* Assuming three eligible suppliers, the suppliers with the two highest factored... ..the option of submitting a BAF at the end of the event (ie after the **bidding** time has elapsed according to the server clock). It is not mandatory to submit a... ..the supplier is eligible to do so. In order to preserve the concept of factored **bidding**, each supplier is presented with their CBTW (Current Bid To Win) as in the normal **bidding** event described above.

Each of these suppliers can then submit a bid, which is factored... ..the equivalent submitted bid for the supplier with the lowest factored bid from the normal **bidding** event.

This remaining supplier is then presented with the option of submitting a BAF, based... ..the normal event is rewarded with the ultimate BAF option.

11. Reserve Price

With factored **bidding**, once a supplier submits a suitable bid, the buyer is bound to accept it and... ..between buyer and supplier vary widely. There is also a desire to make the online **bidding** process more closely resemble a true negotiation, whereby both parties may have quite different opening... ..ability to solicit indicative prices from suppliers prior to setting the starting price for a **bidding** event. Without resorting to performing a full-blown RFQ, this can be achieved during... ..supplier acceptance.

The system requires that a reserve price is always set prior to a **bidding** event. The reserve price may be set or changed up until the BOM becomes Active... ..is not disclosed to the suppliers until it is reached during the course of a **bidding** event

Once the reserve price is reached, the contract will be awarded to the bidder with the lowest factored bid at the close of the **bidding** event.

If the reserve is not reached, the buyer has the right not to proceed... ..do so with the bidder holding the lowest factored bid at the close of the **bidding** event. The rules surrounding the event must preclude any post-event negotiation. This is necessary... ..fairness of the process.

Once the reserve price is reached during, the course of an online **bidding** event, this is indicated to all suppliers by an appropriate indicator or message on the... 12. Request for opening bid

Generally, the buyer initially specifies a starting price for a **bidding** event, which effectively becomes the first factored bid from which each supplier's CBTW is... will be calculated when each supplier validates, and this becomes the new starting price. The **bidding** event therefore commences with a starting price equal to the lowest factored bid from the... the RFQ conditions, and their factors are within an acceptable range to the buyer, a **bidding** event for the business could follow the RFQ process. In this case the buyer is... The buyer is using the factored pricing functionality as a discovery process for the factored **bidding** event. This will be most important for project based industries in which one-off designs... kg \$4.00/kg

Suppliers

After factoring suppliers in the same way as for factored **bidding**, this is then applied to the buyer's target price to arrive at a price... options from the specifications.

This invention provides a fundamentally different approach to the conventional 'reverse **auction**' concept, and allows a participating organisation's budget for strategic materials contracting to be employed in a highly cost-effective manner in a competitive online **bidding** process, whilst reducing the time for 'price discovery' in comparison with the conventional RFQ process.

In traditional reverse **auction** processes for strategic material supply, the vendors compete on price and the buyer then somewhat... approach, apart from the time it takes, is that it destroys the credibility of the **bidding** event, since the lowest bidder may not necessarily win the contract. The present invention addresses...

Claims:

...parameter, such as forecast material demand, commodity price forecasts, exchange rate forecasts, industry trends, historical **bidding** data, etc.

11 The method of any one of claims 7 to 10, the BOM... of the unextended time period an option to submit the very final offer of the **bidding** event. io 13. The method of any one of claims 7 to 12, including the... MD ISFx) where x indicates a particular supplier X; m indicates that particular supplier's **bid number**; n indicates the overall **bid number** (ie I" **bid**:n=1; 2 d bid:n=2; etc); FB indicates a factored bid for said the step of, before commencement of a **bidding** event for said supply contract, opening offers are received by the administrator computer from said suppliers, said opening offers being compared to establish a starting price for said **bidding** event.

18 The method of claim 17 insofar as dependent on any one of claims... with any other opening offer.

19 The method of any preceding claim, applied to a **bidding** event for said supply contract having a prescribed time period, wherein, after said time period...

11/K/34 (Item 7 from file: 349)

Fulltext available through: [Order File History](#)

PCT FULLTEXT

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	Country	Number	Kind	Date
Patent				19

Detailed Description:

...agreement. Competitive electronic marketplaces employ bulletin boards, static listings of available loads and capacity, and **auctions**. Shippers or carriers put loads or capacity out for bid and rule based exchanges utilize...
...automated matching and services. Examples include DAT (a bulletin board/negotiating service), logistics.com (an **auction** service), and NTE (a form of a transportation exchange).

[0003] Today's transportation agreements vary...1.1 5 per mile and seven trucks are available at that rate. The total **number** of shipments **bid** is eight, which means that three (8-5) are tendered at rates less than \$1...the sum of the line haul charges plus accessorial for

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services such as extra **stops**-in-transit, loading and unloading, **extra** waiting **time**, etc. All fees are subtracted from the gross fee prior to its display. The information...degree of confidence than before because TrantisLink provides Best Available rates (shipper bids and carrier **offers**), tota-1 **number** of currently available shipments and truck-s, I-ast trade and daily trade volume, dept...

11/K/35 (Item 8 from file: 349)

Fulltext available through: [Order File History](#)

PCT FULLTEXT

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COMPUTERIZED AUCTIONING SYSTEM AND METHOD

	Country	Number	Kind	Date
Patent				19

English Abstract:

A computerized **auctioning** system and method is provided for **auctioning** a plurality of items, such as securities. See Figure 1. In an exemplary embodiment, a host server (1) capable of operating the **auction** is coupled to a plurality of client systems (3) representing the bidders or sellers. The host server will operate the **auction** for a predetermined time, select the bidders which qualify to purchase the quantity of items... ..that each qualifying bidder will receive. The host server may also continue to operate the **auction** in predetermined time intervals after the regular **auction** has ended.

Detailed Description:

COMPUTERIZED AUCTIONING SYSTEM AND METHOD

Field Of The Invention

The present invention relates to-computerized **auctioning** systems and methods, particularly for **auctioning** securities, such as bonds, or other fungible items.

Background Information

There are a number of **auction** systems available today which allow sellers to sell products, goods, or services to the highest bidder. In a typical **auction**, as is well known in the art, a seller will post a description of the... ..sale and various bidders will then begin making competitive bids for the item during the **auction** process. The individual bids may be posted or kept secret. At the end of the **auction** period, the seller typically selects the highest price offered and sells the item to the bidder who made the highest offer.

With the advent of modern technology, many modern **auction** systems now involve the use of a computer to keep track of the bids offered from respective bidders and then to determine the highest bidder at the end of the **auction** period. Such computerized systems help to better facilitate and speed up the **auction** process, especially where there are a large number of bidders **bidding** to purchase the item.

I
Developments in modern technology have even further improved the traditional **auction** process by allowing **auctions** to be conducted over a widely-distributed network, such as the Internet. Such 'online' systems... ..the host server, which keeps track of the bids and at the end of the **auction** period determines the highest bidder. An example of such an online system is the Ebay... ..allow sellers and bidders from all over the world to participate in multiple on-line **auctions**.

Another example of such an "online" **auction** system, such as the Onsale.com site, carries out so-called Dutch **auctions**.

In such **auctions**, multiple bidders **bid** on a **quantity** of similar items (e.g., 150 lap-top computers of the same make and model... ..quantity sought and time of entry of the bid. At the end of a fixed **auction** period, the quantity of items is assigned to the successful bidders according to the ordering of the bids.

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Summary Of The Invention

The present invention provides an **auction** system and method which can be implemented with a computerized system and/or over a... ..invention, a host server (i.e., a computer) is provided for carrying out a

dutch **auction** for an offering of securities, including debt and equity securities. The host server is coupled... ..of client computers so that bidders,, at the client computers, may view information regarding the **auction** offering and then transmit their respective bids for some or all of the securities offered.

The host server will operate the **auction** for a predetermined time (i.e., the **auction** period) during which bids will be accepted. At the end of the **auction** period, the host will determine the successful bids and allocate the debt securities among the... ..According to another aspect of the present invention, the 10 host server may continue the **auction** for a predetermined time limit after the normal **auction** period has **ended**. During the **extended auction period** (the "quiet **close**"), the clearing price and amount bid may be updated accordingly.

15 Brief Description Of The... ..the present invention.

FIG. 3 is a flow chart illustrating an exemplary embodiment of an **auction** procedure in accordance with the present invention.

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FIG. 4 is a flow chart illustrating... ..present invention.

FIG. 1 shows a block diagram of an exemplary embodiment of a computerized **auctioning** system in accordance with the present invention. The system of Fig. 1 includes a host the computerized **auctioning** system operates in accordance with a novel method for

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auctioning quantities of securities such as bonds. The host server 1 may be a personal computer... ..sending, and processing data, instructions, or information. The host server 1 executes and maintains the **auction** system of the present invention. For Internet-based applications, the host server 1 may also maintain the site by which the **auctioning** system is accessed. The host server 1 is typically operated and maintained by a third party such as an auctioneer, broker or underwriter which hosts **auctions**.

While the preferred exemplary embodiment is described in terms of a system for **auctioning** securities online, it will be apparent to a person of ordinary skill in the art that the present invention is readily applicable to the **auctioning** of almost any type of commodity, goods, services, etc. Moreover, the present invention is also applicable to almost any kind of **auction** and is not limited to "online" implementations.

Each of the various individual clients 3 may... ..data, instructions, or information. In the exemplary embodiment disclosed, the

individual clients 3 represent any **auction** participant (e.g., bidder, issuer) or non-active participant (e.g. viewer) who may have... ..to the host server 1.

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As mentioned, the exemplary embodiment disclosed relates to the **auctioning** of bonds. Bonds are evidences of debt issued by a government or corporation (the 'issuer... ..bond is typically referred to in terms of the bond's yield.

Thus, in an **auction** of bonds, such as in the present invention, bids are usually specified in terms of... ..2 shows a flow chart of an exemplary initial procedure carried out by the computerized **auctioning** system of the present invention prior to conducting an **auction**. An **auction** participant, such as an issuer of bonds, may access

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the system with a request 4 to set up an **auction** to sell a quantity of bonds. The system creates (at 6) a file for the... ..yields (or spreads) that the issuer is willing to receive, the desired date of the **auction**, etc. Basically, any information that may be relevant to the conduct of the **auction** can be obtained from the issuer at this time. Thus, in the bond example, the system will establish a minimum **bid quantity** or the maximum clearing spread that the issuer is willing to accept for the bonds... ..that are above the maximum clearing spread or with quantities that are below the minimum **bid quantity**.) In addition, identifying information regarding the issuer and any other information or disclosures required by... ..understood by those of ordinary skill in the art.

For issuers that have already conducted **auctions** with the system of the present invention, the system will already likely have some information... ..is obtained and verified (at 8) and a decision is made to proceed with the **auctioning** of the issuer's offering, any relevant or helpful information 5 regarding the **auction** or information required by law is posted (at 9) on the **auction** site for display to any potential bidder with access to the site. (Access to this... ..things, display that the issuer is offering \$500 million worth of bonds, and that the **auction** period will begin and end at a particular time on a particular date.

As with... ..accessed the system of the present invention and viewed the posted information regarding a particular **auction** may desire to register with the host server 1 before the **auction** period so that he may bid for the securities offered. Thus, in the preferred embodiment... ..server 1 that he wishes to be registered so that he may participate in the **auction**.

The system can require that the bidder register with the **auction** operator first (...25 underwriter) and obtain a user ID and password before being given access to the **auction** system (or at least those portions

of the **auction** system required for **auction** participation).'
 Naturally, the precise procedure for qualifying bidders and the information required will depend on the nature of the **auction** (e.g., securities vs. goods), regulatory requirements 5 and other considerations, as can be understood... ..block 6, and request from the bidder information which is pertinent to participating in the **auction**. Examples of such information include the bidder's name and address, the bidder's account information (assuming the bidder is trading in an account maintained by a broker conducting the **auction**), or any other information relevant to the bidder's participation in the **auction**.

once all the necessary information has been provided from the bidder in blocks 6 or... ..obtained, 5 processed and verified, and the date and time of the commencement of the **auction** arrives, the computerized **auctioning** system commences the **auction** at block 10 as show in Fig. 3. The **auction** will proceed until the close of the **auction** period. The **auction** period (e.g. 2 hours) can be specified by the issuer or the operator of the **auction** site.

As shown in FIG. 3, once the **auction** commences, the system will receive bids at block 11 from a plurality of bidders. Each... ..bidder to see only his own outstanding bids.

There may be a limit on the **number** of **bids** a particular bidder may submit (i.e., three) or on the total quantity of 5... ..server or by noting whether the bid was placed during a first period of the **auction** (a "Tier 1" bid) or during a second period of the **auction** (a "Tier 2" bid).

As each bid is received at block 11, the system checks... ..block 12, to ensure that each bid meets the required parameters which the issuer (or **auction** operator) has originally set or that are otherwise imposed by the system.

For example, the... ..and spreads in one quarter point increments). There

also may be a limit on the **number** of times a **bid** may be changed by each bidder. If the bid fails to meet the preset criteria... ..each bid in a particular order,

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such as in descending or ascending order by **bid** price, **quantity** or time of **bid**.

As bids continue to be received and accepted, the system determines the clearing price or... 5 The clearing price is determined to be the highest price such that the total **quantity bid** at that price and higher equals or exceeds the available quantity of items offered for sale. In the case of a bond **auction**, the clearing spread is the lowest spread such that the total **quantity bid** at that spread and lower equals or exceeds the available quantity of bonds.

For example basis points is the lowest spread such that the total **quantity bid** at the spread of 107 and lower (106 and 105) exceeds the total \$500 million... decide to remove their bids altogether.

After displaying the clearing spread at block 16, the **auction** continues, with the computerized **auctioning** system continuing to receive bids at block 11 and following the logic in blocks 11... price) is re determined and re-displayed at block 16 in real-time. The total **quantity bid** at the clearing spread or below may also be displayed.

In an alternative embodiment, the... with this facility, preferably maintain their original time stamp.

In another alternative embodiment, the regular **auction** period may be extended, if for example, the issuer determines to increase the quantity of... of bonds). There
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may be various restrictions placed on the extension of the regular **auction** period, such as requiring the issuer to notify the **auction** operator of the increase within one hour of the close of the regular **auction** period. The system will in turn 5 notify the bidders of such changes.

In yet another alternative embodiment, the system may terminate the **auction** at any time if certain market conditions change which would materially affect the **auction**.

As shown in FIG. 4, at the end of the regular **auction** period, the computerized **auctioning** system will display at block 17 the last clearing spread. The system will then proceed... not, the system will reject the bid changes at block 21. As during the regular **auction** period, there may be certain requirements on the bid changes placed (e.g., changes in... as described in blocks 19 If the predetermined period of time has expired, the computerized **auctioning** system will then compare, at block 26, the last clearing spread of the regular **auction** period (as

displayed at step 17) to the last clearing spread determined (at step 23... ..the last clearing spread determined is lower than the last clearing spread of the regular **auction** period by a predetermined amount (e.g., one basis point), the system will then continue... ..of time (e.g., 2 minutes). If not, then the system will formally close the **auction** at block 27. In this way, the quiet **close** is **extended** in **time** increments (e.g., 2 minutes) until the improvement in the clearing spread falls below the predetermined threshold (e.g., 1 basis point). To avoid indefinitely extending the **auction**, an overriding time limit (e.g., 1 hour) is preferably placed on the quiet close, after which the **auction** will be closed, regardless of the magnitude of improvement in the clearing spread.

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In FIG. 5, once the final clearing spread has been established at step 28, the computerized **auctioning** system will then proceed to determine how the bonds will be allocated among the successful bids. In the exemplary embodiment, all bids that are below the clearing spread are successful **bids** and the **quantities** requested by each will be allocated completely to those bidders. Thus, in the aforementioned bond... ..3 (\$150 million), who bid at lower spreads of 105 and 106.

Next, the computerized **auctioning** system will proceed to allocate the remaining quantity of bonds among those bids that were...the above example, the clearing spread bids were placed by C and D with C **bidding** for \$175 million of bonds and D **bidding** for \$100 million of bonds.

In an exemplary embodiment of the present invention, the system... ..first

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predetermined period (e.g., one hour, or the first half) of the regular **auction** period are referred to as first tier clearing spread bids. All subsequent bids are second... ..clearing spread bids does not exceed the predetermined portion of the clearing quantity, then the **auction** system will fulfill, at block 32, all of the first tier clearing spread bids in... ..then be divided up evenly or in any other fashion (e.g., pro rata by **quantity bid**) among the second tier clearing spread bids at block 33.

If it is determined at... ..bids exceeds the predetermined portion (e.g., 2/3) of the clearing quantity, then the **auctioning** system will proceed to follow the logic in blocks 34-37 of FIG. 5. At... ..will receive T2 of his bid.

If, however, T1 is less than T2, then the **auctioning**

system will treat both tiers equally and allocate at block 36 the same portion of the aggregate **quantity** of all clearing **bids** to both first and second tier clearing spread bids.

Namely, each clearing spread bidder would receive a portion T3 of his **bid**, where.

$T3 = (\text{clearing } \mathbf{quantity}) / (\text{aggregate quantity of 1st and 2nd tier clearing spread bids}).$

Thus, by way of example... 100 = \$80 million of bonds, with each individual first tier bidder receiving 80% of the **quantity** of his individual **bid**. The bidders of the second tier clearing spread bids will receive, as a group, 0... 80 = \$40 million of bonds with each individual second tier bidder receiving 50% of the **quantity** of his individual **bid**.

In another example, if the clearing quantity is \$120 million of bonds, and the aggregate... be assigned to tiers based on other criteria or combinations of criteria (e.g., by **quantity bid** for or a combination of time and quantity).

Because the above-described allocation calculations may often result in fractional allotments, the computerized **auctioning** system may round up or round down the fractional allotments to the nearest whole number... of a computerized system, it is also intended to claim the method of conducting an **auction** as described in the logic of this system.

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Claims:

1 A system for **auctioning** a plurality of items, comprising a host server and a plurality of clients, wherein the... are coupled to a data communications network, the host server including: means for communicating with **auction** participants; means for maintaining a database containing information regarding the **auction** participants; means for providing information regarding the plurality of items; means for conducting an **auction** for a preset **auction** period; means for processing bids, each bid having a price and a quantity associated therewith... all second tier bids.

3 The system of claim 1, comprising means for extending the **auction** for a predetermined time limit beyond the preset **auction** period, including: means for receiving bid changes after the preset **auction** period; means for rejecting bid changes that are not better than the clearing price; and means for determining a new clearing price, wherein the **auction** is closed if the predetermined time limit has expired and the clearing price has not... system of claim 5, wherein the securities include fixed-income securities.

7 A method for **auctioning** a plurality of items comprising the steps of: communicating with **auction** participants; maintaining a database containing information regarding the **auction** participants; providing information regarding the plurality of items; conducting an **auction** for a preset

auction period;processing bids, each bid having a price and a quantityassociated therewith;determining a...
...associatedwith all second tier bids.

9 The method of claim 7, comprising extending the **auction**

for a predetermined time limit beyond the preset **auction**period, including:receiving bid changes after the preset **auction** period,wherein each bid change changes the associated price of apreviously processed bid;rejecting... ...to be better than the clearingprice;determining a new clearing price; andclosing the **auction** if the predetermined time limit hasexpired and the clearing price has not improved by...

11/K/36 (Item 9 from file: 349)

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PCT FULLTEXT

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A TRADING AND AUCTION SYSTEM, AND METHODS FOR THE AUTHENTICATION OF BUYERS AND SELLERS AND FOR THE TRANSMISSION OF TRADING INSTRUCTIONS IN A TRADING AND AUCTION SYSTEM

	Country	Number	Kind	Date
Patent				19

English Abstract:

A trading and **auction** system (10), and a method for the authentication of buyers and sellers and for the transmission of trading instructions in a trading and **auction** system (10) is disclosed. To register with the trading and **auction** system (10), a user must provide a unique identifier of a messaging-capable wireless device (22) belonging to the user. After assigning a password to the user, the trading and **auction** system (10) communicates the password to the user and receives a confirmation of said password... ...s account or trading instruction is activated if the password is correct. The trading and **auction** system (10) assigns a unique identification number to each product or service for sale or **auction**. Messages are sent to a buyer's wireless device (22) concerning offers or bids made... ...by simply replying to the received message and entering a trading instruction. The trading and **auction** system (10) processes messages concerning a buyer's trading instructions on a product or service...

Detailed Description:

A Trading And **Auction** System, And Methods For The Authentication Of
Buyers And Seliers And For The Transmission Of Trading Instructions In A
Trading And **Auction** System
FIELD OF THE INVENTION

The present invention relates to a trading and **auction** system, and to methods for the authentication of buyers and sellers and for the transmission of trading instructions in a trading and **auction** system.

The invention has particular, although not exclusive, utility in allowing users of wireless devices with messaging capability, such as mobile phones, to participate 0 in **auctions** and trades quickly and efficiently.

Throughout the specification, unieess the context requires otherwise, the word... ...from a rare coin collection to a

second-hand piece of furniture.

Websites that facilitate **auctioning** of goods and services, such as eBay.com, derive success from quickly building a critical mass of transactions. In a particular transaction, simply choose to walk away from the deal, thereby reneging on an **auction** contract.

These problems are well known and many **auction** sites have sought to address them by introducing various means of bidder authentication and deal verification. Bids or reneging on deals, they will be forever barred from doing business on the **auction** site.

Buyers wanting to bid for a product at an **auction** website typically use a computer equipped with an Internet connection and a browser. More recently, several **auction** websites have begun to pursue strategies that give users access to their **auction** accounts using wireless devices. Most use wireless devices, such as pagers or SMS (short message service) addresses or other fixed commands in the text body of the SMS message, instructing the **auction** engine which action to take. Once sent by the bidder, the message is then sent to the specified e-mail address, eventually to reach the **auction** engine.

Since the e-mail address is typically a common one to which several other bidders send their messages, the instruction for the **auction** engine and the particular product being bid upon must be specified within the message itself. Wireless Application

Protocol or "WAP" are expected to gain popularity in the coming years. Some **auction** sites now allow mobile devices using WAP access to their site. To access the Internet... browses the Internet using their WAP phone's small screen.

In the context of an **auction** website, the user accesses the **auction** website using their WAP phone and logs in, perhaps enters a password, and then eventually gains access to his account. The "logged in" mobile user may now engage in basic **auction** activities, such as reading messages notifying him of the status of a bid, and instructing the **auction** server to raise his bid if it has been beaten.

The fact... using the present legacy" digital mobile phones acts as a limiting factor to growth of **auction** use through this medium. Further, until the introduction of General Packet Radio Service or "GPRS" cumbersome, requiring users to dial-in to a gateway and log in to the **auction** website each time they want to access their accounts. This necessarily takes time and in... processes a computer Internet user would perform to do the same things on an **auction** website.

Although the preceding discussion focused on **auction** websites, where buyers outbid each other for a certain product or service, many of the above discussions can also be applied to other types of eCommerce and **auction** business models, such as reverse **auctions** (i.e., buyers set prices which sellers are supposed to meet) and fixed price models.

SUMMARY OF THE INVENTION

This invention seeks to address the present limitations of mobile **auction** processes through the use of the two-way SMS communication facility found in many digital... server system and forwarded to the mobile phone of the recipient.

The invention includes an **auction** server that is directly linked to the mobile network's short messaging service. In the present embodiment of the invention, the **auction** server communicates directly with the GSM network's Short Message Service Center's ("SMSC") server system to send and receive short messages or commands via SMS. The **auction** server communicates with the SMSC via the Internet, a direct communication line, or other suitable

communication system.

Short messages are sent and received from the **auction** server system using the GSM networks' message protocol. In one embodiment of the invention, the... a deal, since he can be easily tracked down and barred from engaging in future **auction** activities. Once barred, a trader will have to access another mobile phone number to re-register and continue using the **auction** system. This is more effective than using simply an email address, since email addresses are... set up as compared to mobile phones. Before a buyer or seller can use the **auction** system, they will need to register with the **auction** server. In the present embodiment of the invention, providing a mobile phone number is a... mobile-phone-like numeric addresses to each product or service being bid out on the **auction** server. This unique numeric address is used as an identifier in SIVIS messages sent from the **auction** server, allowing a user to more conveniently and quickly send a command to the **auction** server (e.g., raise a **bid** to a particular **level**) via simple SIVIS transmissions (e.g., by simply hitting the "Reply" option found in most... of buyers and sellers and for the transmission of trading instructions in a trading and **auction** system, comprising the steps of.

Requiring that a prospective buyer or seller register with the trading and **auction** system before being able to place trading instructions, including requiring that said prospective buyer or... is correct;
Assigning a unique identification number to each product or service for sale or **auction** at said trading and **auction** system;
Sending messages to a buyer's wireless device concerning offers or bids made by... comprises the step of requiring that a buyer authenticate their identity with the trading and **auction** system when placing their first trading instruction in relation to a product or service by an exchange of messages between the trading and **auction** system, in which at least one of said messages are sent or received using said... to control and manage SIVIS to and from said wireless device, wherein said trading and **auction** system is in direct communication with said SIVISC server.

Preferably, said step of sending messages... the access identification number to identify SIVIS from wireless devices destined for said trading and **auction** system and to forward such SIVIS directly to the trading and **auction** system,
Preferably, said trading and **auction** system is connected to said SIVISC server via a computer network.

In accordance with a... is provided a method for the authentication of buyers and sellers in a trading and **auction** system, comprising the steps of.

Requiring that a prospective buyer or seller register with the trading and **auction** system before being able to place trading instructions, including requiring that said prospective buyer or... step of requiring that a buyer 1 0 authenticate their identity with the trading and **auction** system when placing their first trading instruction in relation to a product or service by an exchange of messages between the trading and **auction** system, in which at least one of said messages are sent or received using said... to control and manage SIVIS to and from said wireless device, wherein said trading and **auction** system is in direct communication with said SIVISC server.

Preferably, said step of sending messages... the access identification number to identify SIVIS from wireless devices destined for said trading and **auction** system and to forward such SIVIS directly to the trading and **auction** system.

Preferably, said trading and **auction** system is connected to said SIVISC server via a computer network.

In accordance with a... there is provided a method for the transmission of trading instructions in a trading and **auction** system, comprising the steps of.

Assigning a unique identification number to each product or service for sale

0 or **auction** at said trading and **auction** system;

Sending messages to a buyer's wireless device concerning offers or bids

made by...the step of requiring that a buyer authenticate their identity with the trading and **auction** system when placing their first trading instruction in relation to a product or service by an exchange of messages between the trading and **auction** system, in which at least one of said messages are sent or received using said... ..control and manage SIVIS to and from said wireless device, wherein said trading 0 and **auction** system is in direct communication with said SIVISC server.

Preferably, said step of sending messages... ..5 access identification number to identify SIVIS from wireless devices destined for said trading and

auction system and to forward such SIVIS directly to the trading and **auction** system.

Preferably, said trading and **auction** system is connected to said SIVISC server via a computer network.

In accordance with a fourth aspect of this invention, there is provided a trading and **auction** system, comprising.

registration handling means for receiving a unique identifier of a

messaging-capable wireless... ..to automatically allocate a

unique identification number to each product or service for sale or **auction**

on said trading and **auction** system;

database means for storing the unique identification number of each

product and service for sale or **auction** on said trading and **auction** system

and for storing the unique identifier of each buyer or seller's wireless

device; and

trade and **auction** handling means arranged to send messages to a buyer's

wireless device concerning offers or... ..the product or service included in a 'Sender' field of each message;

said trade and **auction** handling means further arranged to receive

messages concerning a buyer's trading instructions on a... ..instructions for that product or service and execute said trading instructions.

Preferably, said trade and **auction** handling means is arranged to require that a buyer authenticate their identity with the trading and **auction** system when placing their first trading instruction in relation to a product or service by an exchange of messages with the trading and **auction** system, wherein one of said messages is communicated to said buyer's wireless device via... ..number to identify SIVIS from the buyer's wireless device destined for said trading and **auction** system and to forward such SMS directly to the message receiving means.

Preferably, said message... ..In accordance with a fifth aspect of this invention, there is provided a trading and **auction** system, comprising.

registration handling means for receiving a unique identifier of a

messaging-capable wireless... ..In accordance with a sixth aspect of this invention, there is provided a trading and

auction system, comprising.

message dispatching means for sending messages to a prospective buyer or seller's... ..to automatically allocate a unique identification number to each product or service for sale or **auction** on said trading and **auction** system;
database means for storing the unique identification number of each product and service for sale or **auction** on said trading and **auction** system;
and
trade and **auction** handling means arranged to send messages to a buyer's wireless device concerning offers... ..the product or service included in a 'Sender' field of each message;
said trade and **auction** handling means further arranged to receive messages concerning a buyer's trading instructions on a... ..instructions for that product or service and execute said trading instructions.

Preferably, said trade and **auction** handling means is arranged to require that a buyer authenticate their identity with the trading and **auction** system when placing their first trading instruction in relation to a product or service by an exchange of messages with the trading and **auction** system, wherein one of said messages is communicated to said buyer's wireless device via... ..number to identify SIVIS from the buyer's wireless device destined for said trading and **auction** system and to forward such SIVIS directly to the message receiving means.

1 5 Preferably... ..3 are schematic diagrams showing generally how a user can register with a trade and **auction** system; and
Figure 4 is a schematic diagram showing generally how a user can receive notifications concerning his bids and submit further bids to the trade and **auction** system.

BEST MODE(S) FOR CARRYING OUT THE INVENTION

The preferred embodiment of the invention is directed towards a trade and **auction** system that: offers an improved authentication process and provides a - 16 more convenient **bidding** system for users with messaging-capable wireless devices. The performed embodiment will be described with... ..should be appreciated that the invention is not limited to such devices.

The trade and **auction** system of the embodiment includes an **auction** server 1 0.

The **auction** server 10 comprises a registration handling means (registration handler), a message dispatching means (message dispatcher... ..identification number assigning means (UIN assignor), a database means (database 12), and a trade and **auction** 1 0 handling means (**auction** handler). These are embodied in the form of program routines that are continuously executed under the control of an operating system in the **auction** server 1 0 and thus automate the registration and binding process.

The **auction** server 1 0 is connected to a computer network 14, the internet in this embodiment. This allows a prospective user with a computer 16 to access the 1 5 **auction** server 1 0 via the computer network 14 and the user's internet service provider (ISP) 18.

The **auction** server 1 0 is also linked directly or through the Internet to the GSM network... ..communication line, or other suitable communication system. Short messages are sent and received from the **auction** server 10 using the GSM network's message protocol. In this embodiment of the invention... ..W') a system adopted by GSM mobile phone and network manufacturers such as Nokia. The

auction server can also be arranged to support any of the popular short message protocols, such... ..user.

With reference to Figure 1, the user uses their computer 16 to access the **auction** server 10 via computer network 14 and their ISP 18. In the embodiment, the user

16 accesses a registration form available on the **auction** server 10. The registration form includes fields in which the user must enter essential data... ..into the field in the registration form, the user then submits the information to the **auction** server 10. This can be achieved in a number of ways, such as using... ..the registration 10 form, where the user can submit the entered data to the **auction** server 10. Upon receipt of the essential and optional data from the user's... ..authentication process used in the embodiment.

The authentication process for new users registering with the **auction** server 10 is performed by the registration handler. As shown, the registration process initially... ..contain an instruction to the user to enter the password and submit it to the **auction** server 10 using their computer 16.

Figure 3 shows a second part of the... ..message on their GSM mobile telephone 22, the user submits the temporary password to the **auction** server 10 using the computer 16. In the embodiment, once the user has submitted data entered on the registration form to the **auction** server 10, the user's computer 16 is taken to a further HTML web page... ..the password in a field provided on the web page and submit it to the **auction** server 10. The further HTML web page then explains that once the password has been verified by the **auction** server 10, their account will 15 be activated.

The user enters the password in to their computer 16 and submits the information to the **auction** server 10. Note that the information received by the **auction** server 10 must also identify the user. This can be achieved in a variety... ..that contains information based on the prior activities of the user, which also allows the **auction** server 10 to identify a user or someone visiting the URL address corresponding to the **auction** server 10. For that session, a cookie, which

identifies the user, is associated with that user's account

Upon receipt of the password, the **auction** server 10 verifies that the submitted password is the same as the temporary password stored...concatenation of the numeric

access and the numeric address assigned by and recognized by the **auction**

server 10 as that for registration purposes. The user's SIVIS message would then 15 be forwarded from the SIVISC 20 to the message receiver of the **auction** server 10.

The user's id and password can then be verified, since the... ..the "sender" field of the SIVIS message.

In an enhancement to the registration process, the **auction** server 10 dispatches a message to the user's mobile phone 22 containing... ..a - 20 numeric access code and a numeric address assigned by and recognized by the **auction** server 10 as that for registration purposes. The numeric access code is used by the SIVISC server system 20 to identify the **auction** server 10. Any SIVIS

messages received by the SIVISC server system 20 whose "recipient" field

commences with the numeric access code of the **auction** server 10 will be

forwarded from the SIVISC server system 20 directly to the **auction** server 10 were the message receiver processes the message.

The numeric address code for... ..Once registered, a user is able to browse products and services available for trade and **auction** and to place bids for products and services as described in further detail below. Registered users are also able to place their products for 15 trade or **auction** on the **auction** server 10.

To add a product or service to the **auction** server 10, a user submits product data to the **auction** server 10 in a

similar manner to that described above for submitting registration data. That is, the user accesses the **auction** server 10 using their computer 16 and accesses an "add new product HTML web page. The user then enters product data and submits the product data to the **auction** server 10. In the embodiment, the following product data is required, some optional, from... ...A short description of the product that will appear in lists of products on the **auction** server 10.

User Id: The nickname of the registered user selling the product.

9... ...product entry. If the password is incorrect, the product will not be added to the **auction** server 10.

Auction Type/Method: The user can specify whether the **auction** is to be conducted as a regular **auction** or as a Dutch **auction**, for example.

Item Description: A more detailed description of the item for sale.

Country: The seller's country.

Auction Start Date and Time: The date and time that the **auction** will commence. Bids for items are not accepted before an **auction** commences.

Auction Duration: The length of time the **auction** will last.

Category: A broad identification, selected from a list, of the type of product... ...to be bid out that can be uploaded directly from the computer 16 to the **auction** server 10, via the internet 14.

Payment Method: The payment method or methods that... ...shipping, countries that the seller is or is not prepared to ship to, etc.

Minimum Bid: A **threshold** value that sets a minimum value for the first bid.

Bids below the minimum bid value are disregarded by **auction** system 10.

Reserve Bid: An optional value specifying (inverted exclamation mark) a price... ...increment.

Toggie. to use or not use Dynamic Bid Time (optional): This switch tells the **auction** server to extend or not to **extend the auction duration** if bids are

being received **close** to the end of the specified **auction** duration. When

- 22

being received close to the end of the specified **auction** duration. When the switch is turned on, the **auction** will be extended until no bids are received for a length of time corresponding to... ...bid time.

The product data submitted by the user is checked for completeness by the **auction** server 10 and, if the information is complete, the UIN assignor assigns a UIN... ...product. The product data and UIN are then stored in the database

12.

When the **auction** commences, bids concerning the product are also stored in the database 12.

A user may browse products available for **auction** on the **auction** server 10 using his computer 16 via the internet 14. If a user wishes... ..s identity is authentic, the user's bid for the product is accepted by the **auction** server 10 and stored in the database 12. The user's bid is identified... ..for a specific value. An automatic bid specifies a maximum bid by the user. The **auction** and trade handler then acts as a proxy for the user **bidding** by the minimum increment for the product up to the user's specified maximum in an attempt to win the **bidding** for the product by the minimum possible incremental value.

Once the user has registered their... ..and bid up process.

When a user's bid for a product is beaten, the **auction** and trade handler instructs the message dispatcher to send an SIVIS message to the user's GSM mobile - 23 phone 22. The **auction** and message trade handler retrieves the user's mobile phone number from the database 12... ..the message dispatcher to be included as the "recipient" field of the SIVIS message.

The **auction** and trade handler also forwards the product's UIN to the message dispatcher which concatenates the numeric access code of the **auction** server 10 with the received product UIN and inserts the resultant number in the "sender" field of the SIVIS message.

Finally, the **auction** and trade handler forwards a message text to the message dispatcher for inclusion as the message body of the SIVIS message. The 10 message text composed by the **auction** and trade handler includes information concerning the product, such as the product title, the current... ..system 20. The SIVIS server system 20 identifies the numeric access code of the **auction** server 10 in the "recipient" field of the SIVIS message and forwards the SIVIS message directly to the message receiver of the **auction** server 10.

Upon receiving the SIVIS message, the message receiver extracts the product UIN... ..and the text message of the SIVIS message and forwards these to the trade and **auction** handler.

10 The trade and **auction** handler is able to identify the product from the product UIN.

Further, the trade and **auction** handler can identify the user from their GSM mobile telephone number. In the event that a higher bid has already been received from another user, or the user's **bidding** instructions were indecipherable, the **auction** and trade handler sends a reply SIVIS message to the user's GSM mobile phone 1522 notifying them of the error. Otherwise, the trade and **auction** handler enters the bid from the user in the database 12 for that product. Optionally, If the bid is successfully received, the **auction** and trade handler may send ...bid was successfully received.

In addition to sending notification to the previously highest bidder, the **auction** trade handler may also be arranged to send the same notifications to some or all... ..and convenient method and system for the authentication and 25 transmission of instructions for an **auction** and trading system whose users have messaging-capable wireless devices such as SIVIS-enabled GSM...

Claims:

...of buyers and sellers and for the transmission of trading instructions in a trading and **auction** system, comprising the steps of: Requiring that a prospective buyer or seller register with the trading and **auction** system before being able to place trading instructions, including requiring that said prospective buyer or... ..is correct; Assigning a unique identification number to each product or service for sale or **auction** at said trading and **auction** system; Sending messages to a buyer's wireless device concerning offers or bids made by... ..comprising the step of requiring that a buyer authenticate their identity with the trading and **auction** system when placing their first trading instruction in relation to a product or service by an exchange of messages between the trading and **auction** system, in which at least one of said messages are sent or received using said... ..to control and manage SIVIS to and from said wireless device, wherein said trading and **auction** system is in direct communication with said SIVIS server, 6 A method as claimed in... ..the access identification number to identify SIVIS from wireless devices destined for said trading and **auction** system and to forward such SIVIS directly to the trading and **auction** system. - 27

7 A method as claimed in any one of the preceding claims, wherein said trading and **auction** system is connected to said SMSC server via a computer network.

8 A method for the authentication of buyers and sellers in a trading and **auction** system, comprising the steps of: Requiring that a prospective buyer or seller register with the trading and **auction** system before being able to place trading instructions, including requiring that said prospective buyer or... ..comprising the step of requiring that a buyer authenticate their identity with the trading and **auction** system when placing their first trading instruction in relation to a product or service by an exchange of messages between the trading and **auction** system, in which at least one of said messages are sent or received using said... ..to control and manage SIVIS to and from said wireless device, wherein said trading and **auction** system is in direct communication with said SIVIS server. 13. A method as... ..the access identification number to identify SIVIS from wireless devices destined for said trading and **auction** system and to forward such SIVIS directly to the trading and **auction** system. 14. A method as claimed in any one of claims 8 to 13, wherein said trading and **auction** system is connected to said SIVIS server via a computer network. 15. A method for the transmission of trading instructions in a trading and **auction** system, comprising the steps of: Assigning a unique identification number to each product or service for sale or **auction** at said trading and **auction** system; Sending messages to a buyer's wireless device concerning offers or bids made by... ..comprising the step of requiring that a buyer authenticate their identity with the trading and **auction** system when placing their first trading instruction in relation to a product or service by an exchange of messages between the trading and **auction** system, in which at least one of said messages are sent or received using said... ..to control and manage SIVIS to and from said wireless device, wherein said trading and **auction** system is in direct communication, via a direct link or through the internet, with said... ..the access identification number to identify SIVIS from wireless devices destined for said trading and **auction** system and to forward such SIVIS directly to the trading and **auction** system. 21. A method as claimed in any one of claims 15 to 20, wherein said trading and **auction** system is connected to said SIVIS server via a computer network. 22. A trading and **auction** system, comprising: registration handling means for receiving a unique identifier of a 10 messaging... ..to automatically allocate a unique identification number to each product or service for sale or **auction** on said trading and **auction** system; - 31 database means for storing the unique identification number of each product and service for sale or **auction** on said trading and **auction** system and for storing the unique identifier of each buyer or seller's wireless device; and trade and **auction** handling means arranged to send messages to a buyer's wireless device concerning offers or... ..the product or service included in a 'Sender' field of each message; said trade and **auction** handling means further arranged to receive messages concerning a buyer's trading instructions on a... ..for that product or service and execute said trading instructions. 20 23. A trading and **auction** system as claimed in claim 22, wherein said trade and **auction** handling means is arranged to require that a buyer authenticate their identity with the trading and **auction** system when placing their first trading instruction in relation to a product or service by an exchange of messages with the trading and **auction** system, wherein one of said messages is communicated to said buyer's wireless device via... ..from said buyer's wireless device via said message receiving means. 24. A trading and **auction** system as claimed in claim 22 or 23, wherein

said wireless device is a GSM... ..with said SIVISC server to send and receive SIVIS therefrom, respectively. 25.A trading and

auction system as claimed in any one of claims 22 to 24, wherein said message dispatching... ..identify SIVIS from the buyer's 1 0 wireless device destined for said trading and **auction** system and to forward such SIVIS directly to the message receiving means. 26.A trading and **auction** system as claimed in any one of claims 22 to 25, wherein said message dispatching... ..connected to said SIVISC server via a computer network.1 5 27.A trading and **auction** system, comprising: registration handling means for receiving a unique identifier of a messaging-capable w... ..or trading instruction if said confirmation of said password is correct. 28.A trading and **auction** system as claimed claims 27, wherein said wireless device is a GSM device with SIVIS... ..with said SIVISC server to send and receive SIVIS therefrom, respectively. 29.A trading and **auction** system as claimed in claim 27 or 28, wherein said 5 message dispatching means and... ..means are connected to said SIVISC server via a computer network.30.A trading and **auction** system, comprising: message dispatching means for sending messages to a prospective buyer or seller's... ..to automatically allocate a unique identification number to each product or service for sale or **auction** on said trading and **auction** system; database means for storing the unique identification number of each product and service for sale or **auction** on said trading and **auction** system; and- 34 trade and **auction** handling means arranged to send messages to a buyer's wireless device concerning offers or... ..of the product or service included in a Sender's field of each message; said trade and **auction** handling means further arranged to receive messages concerning a buyer's trading instructions on a... ..instructions for that product or service and execute said trading instructions. 31.A trading and **auction** system as claimed in claim 30, wherein said trade and **auction** handling means is arranged to require that a buyer authenticate their identity with the trading and **auction** system when placing their first trading instruction in relation to a product or service by an exchange of messages with the trading and **auction** system, wherein one of said ...from said buyer's wireless device via said message receiving means.32.A trading and **auction** system as claimed claims 30 or 31, wherein said wireless device is a GSM device... ..said SIVISC server to send and receive SIVIS therefrom, respectively. 30 33.A trading and **auction** system as claimed in any one of claims 30 to 32, wherein said message dispatching... ..number to identify SIVIS from the buyer's wireless device destined for said trading and **auction** system and to forward such SIVIS directly to the message receiving means. 34.A trading and **auction** system as claimed in any one of claims 30 to 33, wherein said message dispatching...

11/K/37 (Item 10 from file: 349)

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PCT FULLTEXT

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	Country	Number	Kind	Date
Patent				19

Detailed Description:

...inverted exclamation mark).e., a binding exchange of promises to make payments).

The conventional swap **bidding** process is

deficient in a number of respects. The number of dealers that a user... ..from the negotiation once the parties agree to a swap. In addition, the conventional swap **bidding** process does not allow swap users to run true **auctions** in which dealers openly compete against one another to obtain the swap by **bidding** the best bid. While dealers may be put into competition with one another over the telephone, without an "open" **bidding** environment there is no price discovery mechanism to provide dealers with information that will encourage them to improve their bids. This "closed" **bidding** environment often results in dealers not giving their best bids because dealers are typically concerned... ..therefore, to provide an electronic trading system that provides system users with opportunities to electronically **auction** swaps using an open **auction**.

It would also be desirable to provide an on-line trading system that provides system users with opportunities to electronically **auction** swaps over the Internet or other electronic network using an open **auction**.

It would also be desirable to provide an electronic trading system that provides for the open **bidding** for swaps.

It would also be desirable to provide an on-line trading system that provides for the open **bidding** for swaps over the Internet.

It would also be desirable to provide an electronic trading system that provides for proxy **bidding** for swaps.

It would also be desirable to provide an on-line trading system that provides for proxy **bidding** for swaps over the Internet.

It would also be desirable to provide an electronic trading... ..of some embodiments of the present invention to provide users with opportunities to electronically **auction** swaps using an open **auction**.

It is an object of some embodiments of the present invention to provide users with opportunities to electronically **auction** swaps over the Internet using

an open **auction**.

It is an object of some embodiments of the present invention to provide for the open **bidding** for swaps.

It is an object of some embodiments of the present invention to provide for the open **bidding** for swaps over the Internet.

It is an object of some embodiments of the present invention to provide for proxy **bidding** for swaps.

It is an object of some embodiments of the present invention to provide for proxy **bidding** for swaps over the Internet.

It is an object of some embodiments of the present...the currency the user wishes to trade for.

Some embodiments of the present invention may **auction** swaps using any suitable style **auction**. Some embodiments may, for example, provide for standard open English-style **auctions** in which bidders bid on swaps until the best bid wins. If desired, some embodiments... ..other bidders' identities secret. This approach may have the advantage of fostering aggressive and competitive **bidding** while still providing for the privacy of the system users. Some users may find the possibility of having their **bidding** practices monitored undesirable. Some embodiments may provide for closed **auctions** and for trading swaps using limit orders.

When a swap offer is posted by a... ..rate, the "limit" rate, is the winner of the proposed swap. Some embodiments may **auction** swaps using, for example, a Dutch-style **auction**. Users may, for example, offer a swap at a particular notional amount. Other users may... ..may be accepted until the entire notional amount is gone. Any other suitable style of **auction** may be used.

Electronic business-to-business trading of swaps may provide a number of...or paging the dealers, or by using any other suitable approach.

Users may participate in **auctions** for swaps by, for example, selecting a link in the system message or e-mail... ..system and selecting an

5 offer from a pending offer list.

Users may participate in **auctions** by placing bids on the proposed swap. Some embodiments may, for example, provide a user... user. The user may manually place the bid if desired. Some embodiments may complete an **auction** when, for example, a posting user ((inverted exclamation mark).e., the user who posted the... signed by all users before entering into swaps. In one approach, the completion of the **auction** may be a binding agreement between the best-bidder and the posting user.

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In... electronic approach. Any other suitable approach for completing a swap may be used.

once an **auction** has been completed, and a swap completed according to the applicable business rules of a... sheets for any trade of any sui@table financial instrument. Some embodiments may allow for **bidding** by, for example, placing market orders, limit orders, or any other type of bid. Some... bonds, mutual funds, or other financial instruments. Some embodiments may allow for bids in an **auction**, and allow the users to bid on financial instruments by proxy, as described herein or... g., when a user accepts a bid, when the best bid is placed in an **auction**, etc.), some embodiments may allow users to confirm the trades, may generate trade documentation, and... a flowchart of illustrative steps involved in providing users with opportunities to participate in swap **auctions**, in accordance with one embodiment of the present invention;

FIG. 6 shows an illustrative login... page, in accordance with one embodiment of the present invention;

FIG. 13 shows an illustrative **auction** parameters page, in accordance with one embodiment of the present invention;

FIGS. 14a and 14b... accordance with one embodiment of the present invention;

FIG. 16 shows an illustrative swap user **auction** page, in accordance with one embodiment of the present invention;

FIGS. 17 and 18 show illustrative swap dealer open-**auction** pages, in accordance with one embodiment of the present invention; and

FIG. 19 shows an... term sheets to the users.

Swap transaction information may include any swap terms, bids, **bidding** parties, or any other suitable information.

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Internet and application server 115 may retrieve system... ..or database server 120 may run one or more processes suitable for providing real-time **auctions** for swaps.

Any suitable process or processes may be used. For example, Internet and application server 115 may run an **auction** engine or package, such as the Dynamic Pricing Toolkit sold by Open Site Technologies of... ..terms to database server 120. Application server 120 or Internet server 115, may initiate an **auction** for the proposed swap. This may allow users ...may dial or page a user to, for example, notify the user of a pending **auction**, notify the user that the user's completed proxy bid has been beaten by another bid... ..suitable approach. Other steps may involve additional processing, such as inviting users to participate in **auctions**, providing **auctions**, posting transactions, or other types of processing. In non-on line arrangements, such processing may...system may provide the posting user with an opportunity to indicate one or more swap **auction** parameters. Swap **auction** parameters may include, for example, whether a swap is open or closed, its start time... ..by electronic messages such as system messages or e-mail, by telephone, etc.), how the **auction** may terminate (e.g.,

- 31

end times, user acceptance, time period without bids, etc.), or any other suitable **auction** parameter. The system may also provide the posting user with an opportunity to indicate that... ..bidder to bid the reserve rate or minimum bid is the winner of the swap **auction**.

At step 430, the system may provide the posting user with an opportunity to approve...more pages or screens in which the swap offer terms, the indicated invitee users, the **auction** parameters, or any suitable combination thereof, are displayed for the posting user's review. A suitable... ..system may also invite the invitee users indicated at step 415 to participate in an **auction** for the swap offer.

The system may invite invitee users using any suitable approach. The... ..may provide the posting user and the invitee users with opportunities to participate in swap **auctions** (e.g., step 320 of FIG. 3). FIG. 5 is a

flowchart of illustrative steps involved in providing users with opportunities to participate in swap **auctions**. At step 500, the system may provide a user with an opportunity to indicate a particular swap **auction** that the user wishes to participate in. The user may indicate a particular swap **auction** by, for example, selecting the **auction** from an on-screen list of pending **auctions**. In another suitable approach, The user may indicate a particular swap **auction** by, for example, selecting an Internet link from an e-mail notification for the **auction** that brings the user to an **auction** page. Any other suitable approach may be used.

After the user has indicated an **auction** that the user desires to participate in, the system may determine whether the user was... ..by a better credit risk. This feature may be more appropriate in, for example, closed **auctions** where bidders cannot see the bids of other users. While bid acceptance may be used in open **auctions**, allowing posting users to usurp the "the best bid wins" methodology by accepting a bid that... ..be unacceptable to some bidders, and may tend to cause them to dislike participating in **auctions** for fear of wasting their time.

When the user who indicated a desired **auction** at step 500 is an invitee user, the system may determine whether the **auction** is an open or closed **auction**. When the **auction** is an open **auction**, the system may provide the user with an opportunity to monitor pending bids for the desired **auction** (step 520). In either case, the system may provide the user with an opportunity to... ..any suitable way.

For example, users may only be able to retract bids while the **auction** is still pending or before a bid is accepted. Alternatively, users may have an absolute

time period during which they may retract a bid even if the **auction** is complete. In approaches where a confirmation of a swap is required, retraction of bids... ..be performed, for example, at any time up until the swap is confirmed. If the **auction** is complete when the bid is retracted, the posting user may re-post the bid... ..provide a user with an opportunity to bid by electronic proxy at step 560.

When **bidding** by proxy, a user may set a proxy rate (or other terms depending on the... ..user's behalf. A user may desire to bid by electronic proxy when, for example, an **auction** is to be

completed in a small amount of time, when the user cannot monitor an **auction**, or for any other reason. The user may indicate a desire ...bid (e.g., one-tenth of one basis point (0.001%). The system may keep **bidding** by proxy for a user until the user's best bid is reached. If a better... ...that the proxy bidder's best bid has been beaten. The proxy bidder may rejoin the **auction** before it is completed and enter another bid if desired.

The system may complete an **auction** at step 570. The system may complete an **auction** in response to any suitable event. The system may, for example, complete an **auction** in response to a posting user accepting a bid. The system may also complete an **auction** at a particular time set by the posting user, when no new bids have been... ...dynamically extend the time for bids past a scheduled time when, for example, a certain **number** of **bids** are received within a predetermined time of the scheduled end time of the **auction** (step 575).

Returning to FIG. 3, the system may provide users with opportunities to confirm swaps when, for example, the completion of an **auction** itself is not sufficient to create a binding swap (step 330). The system may provide...provide a list of counter parties that a user may invite to participate in an **auction** for a swap offer. FIG. 12 shows an illustrative specialized invitee page 1200. Invitee page... ...and not other swap users) that Auto Motor Credit may invite to participate in an **auction** for a swap offer. The user may indicate that the user is finished indicating invitees by, for example, pushing button 1210. In response the system may, for example, provide an **auction** parameters page. **Auction** parameter pages may provide the user with an opportunity to indicate whether, for example, an **auction** is to be closed or open, whether the **auction** may be satisfied by a limit order, a start time for the **auction**, an end time for an **auction** (if desired), a minimum bid (sometimes referred to as a reserve rate), how a swap is confirmed (e.g., automatically, electronically, by telephone, etc.), or any other suitable **auction** parameter. FIG. 13 shows an illustrative **auction** parameters page 1300.

In response to a user indicating that the user has indicated all parameters for an **auction** (e.g., by pushing button 1310 of page 1300), the system may provide one or more confirmation pages. Confirmation

pages may display the user's indicated swap terms, invitees, **auction** parameters, or any suitable combination thereof. FIGS. 14a and 14b show illustrative confirmation page 1400 that display the user's swap terms and **auction** parameters. FIG. 14a shows the top of page 1400. FIG. 14b shows the bottom of...invite the invitees, and provide the user with an opportunity to participate in an **auction** for the swap.

FIG. 15 shows an illustrative offer list page 1500 that the system... ..button 1520 that is associated with the offer. In response, the system may provide an **auction** page for the user. When an offer has been posted as an open **auction**, an **auction** page for the offer may display the pending bids for an offer. When an offer has been posted as a closed **auction**, an **auction** page for the offer may only provide the user with an opportunity to place a bid.

FIG. 16 shows an illustrative **auction** page 1600 for an open **auction** that may be provided to a posting user. The example of FIG. 16 shows an **auction** for an interest rate swap in which the best bid (in this example the lowest rate), wins the **auction**. **Bidding** users may bid progressively until the best-bid wins. As shown in FIG. 16, the... ..bid is always displayed at the top of the list.

FIG. 17 shows an illustrative **auction** page 1700 for an open **auction** that may be provided to an invitee user. As shown in FIG. 17, the invitee... ..amount higher than the best bid (e.g., 10 bps) until the user wins the **auction**, the user's best bid is reached, or the **auction** is completed for some other reason.

FIG. 18 shows an illustrative page 1800 that the system may provide to an invitee of an open **auction** when the **auction** is complete. In this example, the **auction** was completed when its time ran out. Page 1800 may indicate the bids pending when the **auction** was completed, and provide the user with an opportunity to retract the user's winning bid... ..to the offering user accepting the next-best bid, the system may electronically notify the **bidding** user of the acceptance. If desired, the system may provide the **bidding** user with an opportunity to retract his or her bid. This may continue until, for bid on derivatives using an electronic **auction**. While some features of the present invention have been described in the context of a...

Claims:

...of an

electronic swap trading system to obtain bids on swaps in an electronic swap **auction**, comprising: providing a user with an opportunity to indicate terms for a swap using an electronic swap termsheet; and providing an electronic **auction** for the swap having the terms indicated by the user using the electronic swap term... ...plurality of users; electronically inviting the at least one invitee user to participate in the **auction** for the swap; and providing the at least one invitee user with an opportunity to participate in the **auction** for the swap.

3 The method defined in claim 2 wherein

electronically inviting the at least one invitee user to participate in the **auction** for the swap comprises sending the invitee user an e-mail message that indicates an invitation to participate in the **auction**.

4 The method defined in claim 3 wherein

sending the invitee user an e-mail message that indicates an invitation to participate in the **auction** comprises sending the invitee user an e-mail that contains an Internet link to an **auctions** page for the **auction**.

5 The method defined in claim 2 wherein

electronically inviting the at least one invitee user to participate in the **auction** for the swap comprises automatically paging the invitee user to participate in the **auction**.

6 The method defined in claim 2 wherein:

the **auction** is an open **auction**; and providing the at least one invitee user with an opportunity to participate in the **auction** for the swap comprises displaying pending bids for the swap.

7 The method defined in... ...user

secret from another invitee user.

8 The method defined in claim 2 wherein:

the **auction** has a best bid; and providing the at least one invitee user with an opportunity to participate in the **auction** for the swap comprises providing the at least one invitee user with an opportunity to... ...wherein providing the at least one invitee user with an opportunity to participate in the **auction** for the swap comprises providing the at least one invitee user with an opportunity to... ...wherein providing the at least one invitee user with an opportunity to participate in the **auction** for the swap comprises providing the at least one invitee user with an opportunity to... ...in claim 1 further comprising providing the user with an opportunity to indicate a desired **auction** from a plurality of **auctions**.

12 The method defined in claim 1 further

comprising providing the user with an opportunity to approve the **auction** with the terms indicated by the user using the electronic swap term sheet.

13 The method defined in claim 1 wherein

providing an electronic **auction** for the swap as indicated by the user using the electronic swap termsheet comprises... ...opportunity to monitor bids.

14 The method defined in claim 1 wherein

providing an electronic **auction** for the swap as indicated by the user using the electronic swap termsheet comprises... ...included in the electronic swap termsheet based on the user's preferences; and, providing an **auction** for a swap as indicated by the user using the electronic swap termsheet comprises providing an **auction** for a swap as indicated by the user using the specialized electronic swap term sheet... ...schedules, and floating rate indices.

17 The method defined in claim 1 wherein:

the electronic **auction** has a first predetermined time period during which bids may be made electronically by users, wherein the first predetermined time period has an **end**; and the method further comprises **extending** the first predetermined **time** period during which bids may be made electronically by users in response to at least... ...time period.

18 The method defined in claim 1 further

comprising providing at least one **bidding** user with an opportunity to participate in the **auction** for the swap.

19 The method defined in claim 18 wherein the method further comprises... ..defined in claim 19 wherein displaying pending bids for the swap comprises keeping identities of **bidding** users secret.

21 The method defined in claim 18 wherein: the **auction** has a best bid; and providing the at least one **bidding** user with an opportunity to participate in the **auction** for the swap comprises providing the at least one **bidding** user with an opportunity to beat the best bid using a single action.

22 The method defined in claim 18 wherein providing the at least one **bidding** user with an opportunity to participate in the **auction** for the swap comprises providing the at least one **bidding** user with an opportunity to retract a bid.

23 The method defined in claim 18 wherein providing the at least one **bidding** user with an opportunity to participate in the **auction** for the swap- 54 comprises providing the at least one **bidding** user with an opportunity to bid by proxy.

24 The method defined in claim 1 further comprising providing the user with an opportunity to confirm a swap with a

bidding user.

25 The method defined in claim 24 wherein providing the user with an opportunity to confirm a swap with a **bidding** user comprises providing the user with an opportunity to confirm a swap by e-mail with the **bidding** user.

26 The method defined in claim 24 wherein providing the user with an opportunity to confirm a swap with a **bidding** user comprises providing the user with an opportunity to confirm a swap using computer-based... ..an electronic commerce system for the electronic exchange of funds from the user to a **bidding** user in accordance with the terms of the swap.

28 The method defined in claim... ..caps, floors, and collars.

31 The method defined in claim 1 wherein providing an electronic **auction** for the swap comprises providing an electronic best-bid-wins **auction** for the swap having the terms indicated by the user using the electronic swap term sheet.

32 The method defined in claim 1 wherein providing an electronic **auction** for the swap comprises providing an electronic English-style **auction** for the swap having the terms indicated by the user using the electronic swap term sheet.

33 The method defined in claim 1 wherein providing an electronic **auction** for the swap comprises providing an electronic Dutch-style **auction** for the swap having the terms indicated by the user using the electronic swap term sheet.

34 The method defined in claim 1 wherein providing an electronic **auction** for the swap comprises providing an electronic closed **auction** for the swap having the terms indicated by the user using the electronic swap term sheet.

35 A method for **bidding** on swaps using the Internet comprising: accessing an **auction** page for a swap; placing a bid on the swap using the **auction** page; and confirming the swap when the **auction** is complete.

36 The method defined in claim 35 wherein: the method further comprises receiving an invitation to access the **auction** page for the swap; and accessing an **auction** page for the swap comprises accessing the **auction** page in response to receiving the invitation.

37 The method defined in claim 35 wherein placing a bid on the swap using the **auction** page comprises placing a proxy bid on the swap using the **auction** page.

38 The method defined in claim 35 wherein

confirming the swap when the **auction** is complete comprises electronically confirming the swap when the **auction** is complete.

39 The method defined in claim 35 further

comprising:- 57 providing the terms... ..opportunity to invite at least one invitee user to bid on the swap in a **auction**; electronically inviting the at least one invitee user to participate in the **auction**; providing the at least one invitee user with an opportunity to place a bid on the swap in the **auction**; completing the **auction**; identify (inverted exclamation mark) ng a particular one of the at least one invitee user... ..invitee user with an- 58 opportunity to place a bid on the swap in the **auction** comprises: providing the terms to a risk management or back office system of an invitee... ..users of an electronic derivatives trading system to bid on derivatives in an electronic derivatives **auction**, comprising: providing an electronic **auction** for a derivative; providing to each user of a plurality of users an opportunity to electronically bid on the derivative in the **auction**; and providing to each user of the plurality of users the bids of the other on the derivative in the **auction** comprises providing to each user of a plurality of users an opportunity to electronically bid... ..derivative over the Internet.

44 The method defined in claim 42 wherein:

providing an electronic **auction** for a derivative comprises providing an electronic **auction** for a swap; and providing to each user of a plurality of users an opportunity to electronically bid on the- 59 derivative in the **auction** comprises providing to each user of a plurality of users an opportunity to electronically bid... ..allowing users of an electronic trading system to bid on financial instruments in an electronic **auction**, comprising: providing an electronic **auction** for a financial instrument; providing to each user of a plurality of users an opportunity to electronically bid on the financial instrument in the **auction**; completing the **auction**; and downloading a winning bid of the **auction** to a risk management or back office system of one user of the plurality of users.

46 The method defined in claim 45 wherein:

providing an electronic **auction** for a financial instrument comprises providing an electronic **auction** for a swap; and providing to each user of a plurality of users an opportunity to electronically bid on the financial instrument in the **auction** comprises providing to each user of a plurality of users an opportunity to electronically bid... ..a plurality of users an opportunity to electronically bid on the financial instrument in the **auction** comprises providing to each user of a plurality of users an opportunity to electronically bid... ..users of an electronic trading system to obtain bids on financial instruments in an electronic **auction**, comprising: providing a user with an opportunity to indicate terms for an offer for a financial instrument using a specialized electronic term sheet; and providing an electronic **auction** for the financial instrument having the offer terms indicated by the user using the specialized electronic term sheet.

49 The method defined in claim 48 wherein

providing an electronic **auction** for the financial instrument having the offer terms indicated by the user using the specialized electronic term sheet comprises providing an electronic **auction** over the Internet.

50 A method for allowing users of an

electronic trading system to... ..least one other user whom the user wishes to invite to participate in an electronic **auction** for the financial instrument; electronically inviting the indicated at least one other user to participate in the electronic **auction**; and providing the electronic **auction** for the financial instrument having the offer terms indicated by the user.

51 The method defined in claim 50 wherein

providing the electronic **auction** for the financial instrument having the offer terms indicated by the user comprises providing the electronic **auction** over the Internet.

52 The method defined in claim 50 wherein

electronically inviting the at least one other user to participate in the electronic **auction** comprises sending the at least one other user an e-mail message that indicates an invitation to participate in the **auction**.

53 The method defined in claim 50 wherein

electronically inviting the at least one other user to participate in the electronic **auction** comprises sending the at least one other user an e-mail message that contains an Internet link to an **auctions** page for the **auction**.

54 The method defined in claim 50 wherein

electronically inviting the at least one other user to participate in the electronic **auction** comprises automatically

...paging the at least one other user to participate in the **auction**.

55 The method defined in claim 50 wherein

providing the user with an opportunity to... ..least one other user whom the user wishes to invite to participate in an electronic **auction** for the financial- 62 instrument comprises providing the user with an opportunity to indicate at... ..users of an electronic trading system to bid on financial instruments comprising: providing an electronic **auction** for a financial instrument offered by an offering user; providing to each **bidding** user of a plurality of **bidding** users an opportunity to electronically bid on the financial instrument in the **auction**; and creating a binding agreement to trade the financial instrument between the offering user and a **bidding** user of the plurality of **bidding** users by completing the **auction**.

57 A method for allowing users of an

electronic trading system to bid on financial instruments, comprising: providing an electronic **auction** for a financial instrument offered by an offering user; providing to each **bidding** user of a plurality of **bidding** users an opportunity to electronically bid on the financial instrument in the **auction**; and creating a binding agreement to trade the financial instrument between the offering user and a **bidding** user of the plurality of **bidding** users by providing the offering user and a **bidding** user an opportunity to electronically confirm the trade of the financial instrument.

58 A method... ..of an

electronic trading system to obtain bids on derivatives in an electronic derivatives **auction**, comprising: providing an offering user with an opportunity to indicate terms for an offer for a derivative; providing a **bidding** user with an opportunity to bid on the derivative in an electronic derivatives **auction** based on the offer; and electronically transferring funds between the offering user and the **bidding** user in accordance with the bid and the offer.

59 An electronic trading system for allowing

users to obtain bids on swaps in an electronic swap **auction**, comprising: a server configured to receive terms for a swap and to provide an electronic **auction** for the swap; and an access device configured to: (1) provide a ...an electronic swap term sheet, and (2) provide the user with access to the electronic **auction**.

60 The system defined in claim 59 wherein:

the access device is further configured to... ..send an electronic invitation to the at least one invitee user to participate in the **auction** for the swap; and the system further comprises a second access device configured to provide the at least one invitee user with an opportunity to participate in the **auction** for the swap.

61 The system defined in claim 60 wherein

the electronic invitation is an e-mail message that indicates an invitation to participate in the **auction**.

62 The system defined in claim 60 wherein

the electronic invitation is an e-mail that contains an Internet link to an **auctions** page for the **auction**.

63 The system defined in claim 60 wherein:

the system further comprises a paging/dialing... ..to the paging/dialing system to automatically page the invitee user to participate in the **auction**.

64 The system defined in claim 60 wherein:

the **auction** is an open **auction**

; the server is further configured to provide pending bids to the second access device; and... ..user secret from another invitee user.

66 The system defined in claim 60 wherein:

the **auction** has a best bid; and the second access device is further configured to provide the... ..retract a bid; and the server is further configured to retract the bid from the **auction**.

68 The system defined in claim 60 wherein

the second access device is further configured... ..device is further configured to provide the user with an opportunity to indicate a desired **auction** from a plurality of **auctions**. - 66

70 The system defined in claim 59 wherein

the access device is further configured to provide the user with an opportunity to approve the **auction** with the terms indicated by the user using the electronic swap term sheet.

71 The... the specialized electronic swap term sheet; and the server is further configured to provide the **auction** for a swap as indicated by the user using the specialized electronic swap term sheet... schedules, and floating rate indices.

75 The system defined in claim 59 wherein:

the electronic **auction** has a first predetermined time period during which bids may be made electronically by users... in claim 59 further comprising at least one second access device configured to provide a **bidding** user of a plurality of **bidding** users with an opportunity to participate in the **auction** for the swap.

77 The system defined in claim 76 wherein:

the server is further... to provide pending bids to the second access device while keeping the identities of each **bidding** user secret from each **bidding** user; and- 68 each second access device is further configured to display pending bids for the swap while keeping identities of other **bidding** users secret to each **bidding** user.

79 The system defined in claim 78 wherein:

the **auction** has a best bid; and each second access device is further configured to provide each **bidding** user with an opportunity to beat the best bid using a single action.

80 The... defined in claim 78 wherein

each second access device is further configured to provide a **bidding** user with an opportunity to retract a... defined in claim 78 wherein each second access device is further configured to provide a **bidding** user with an opportunity to bid by proxy.

82 The system defined in claim 59... further configured to provide the user with an opportunity to confirm a swap with a **bidding** user.

83 The system defined in claim 59 wherein

the access device is further configured... provide the user with an opportunity to confirm a swap by e-mail with the **bidding** user.,

84 The system defined in claim 59 wherein

the access device is further... an electronic commerce system for the electronic exchange of funds from the user to a **bidding** user in accordance with the terms of the swap.

86 The system defined in claim... claim 59 wherein

the server is further configured to provide an electronic best-bid-wins **auction** for the swap having the terms indicated by the user using the electronic swap term... in claim 59 wherein the server is further configured to provide an electronic English-style **auction** for the swap having the terms indicated by the user using the electronic swap term... in claim 59 wherein the server is further configured to provide an electronic Dutch-style **auction** for the swap having the terms indicated by the user using the electronic swap term... defined in claim 59 wherein the server is further configured to provide an electronic closed **auction** for the swap having the terms indicated by the user using the electronic swap term... using the Internet comprising: a server; an Internet enabled access device configured to: download an **auction** page for a swap from the server; place a bid on the swap using the **auction** page; provide the user with an opportunity to provide the bid to the server; and provide the user with an opportunity to electronically confirm the swap when the **auction** is complete. - 71

94 The system defined in Claim 93 wherein

the access device is further configured to: receive an invitation to access the **auction** page for the swap; and provide the invitation to the user.

95 The system defined... the

user with an opportunity to place a proxy bid on the swap using the **auction** page.

96 The system defined in claim 93 wherein

the access device is further configured to electronically confirm the swap when the **auction** is complete.

97 The system defined in claim 93 wherein

the access device is further... opportunity to invite at least one invitee user to bid on the swap in a **auction**; and- 72 electronically invite the at least one invitee user to participate in the **auction**; a second access device configured

to provide the at least one invitee user with an opportunity to place a bid on the swap in the **auction**; a server configured to provide the first user and the particular one of the at... .. An electronic trading system for allowing users to bid on derivatives in an electronic derivatives **auction**, comprising: a server configured to provide an electronic **auction** for a derivative; and a plurality of access devices each configured to: (1) provide to... .. of a plurality of users an opportunity to electronically bid on the derivative in the **auction**, and (2) provide to each user of the plurality of users the bids of the an electronic **auction**, comprising: a server configured to provide an (inverted exclamation mark) electronic **auction** for a financial instrument; a plurality of access devices wherein each access device is configured... .. a plurality of users an opportunity to electronically bid on the financial instrument in the **auction**, (2) automatically complete the **auction**, and (3) download a winning bid of the **auction** to a risk management or back office system. 104. The system defined in claim 103... .. electronic trading system for allowing users to obtain bids on financial instruments in an electronic **auction**, comprising: a server configured to provide an electronic **auction** for a financial instrument; and an access device configured to provide a user with an... .. least one other user whom the user wishes to invite to participate in an electronic **auction** for the financial instrument; provide an electronic invitation to the indicated at least one other user to participate in the electronic **auction**; and- 75 wherein the server (inverted exclamation mark) S further configured to provide the electronic **auction** for the financial instrument to the access device having the offer terms indicated by the... .. electronic invitation is an e-mail message that indicates an invitation to participate in the **auction**. 111. The system defined in claim 108 wherein the electronic invitation is an e-mail message that contains an Internet link to an **auctions** page for the **auction**. 112. The system defined in claim 108 wherein: the system further comprises a paging/dialing... .. dialing system to automatically page the at least one other user to participate in the **auction**. 113. The system defined in claim 108 wherein the access device is further configured to... .. opportunity to indicate a financial instrument to trade; a server configured to provide an electronic **auction** for the financial instrument; a plurality of second access devices configured to provide to each **bidding** user of a plurality of **bidding** users an opportunity to electronically bid on the financial instrument in the **auction**; and wherein the first and second access devices provide the offering user and a **bidding** user of the plurality of **bidding** users with an opportunity to create a binding agreement to trade the financial instrument by completing the **auction**. 115. An electronic trading system for allowing users to bid on financial instruments, comprising: a... .. opportunity to indicate a financial instrument to trade; a server configured to provide an electronic **auction** for a financial instrument; a plurality of second access devices configured to provide to each **bidding** user of a plurality of **bidding** users an opportunity to electronically bid on the financial instrument in the **auction**; and wherein the first and second access devices provide the offering user and a **bidding** user of the plurality of **bidding** users with an opportunity to- 77 create a binding agreement to trade the financial instrument by providing the offering user and a **bidding** user an opportunity to electronically confirm the trade of the financial instrument. 116. An electronic trading system for allowing users to obtain bids on financial instruments in an electronic **auction**, comprising: a first access device configured to provide an offering user with an opportunity to... .. for an offer for a financial instrument; a second access device configured to provide a **bidding** user with an opportunity to bid on the financial instrument in an electronic **auction** based on the offer; and an electronic commerce system configured to electronically transfer funds between the offering user and the **bidding** user in accordance with the bid and the offer. 117. An electronic swap trading system for allowing users to obtain bids on swaps in an electronic swap **auction**, comprising: means for providing a user with an opportunity to indicate terms for a swap using an electronic swap term sheet; and means for providing an electronic **auction** for the swap having the terms indicated by the user using the electronic swap term... .. for allowing users to bid on swaps using the Internet comprising: means for accessing an **auction** page for a swap; means for placing a bid on the swap using the **auction** page; and means for confirming the swap when the **auction** is complete. 119. An on-line swap trading system for allowing users to electronically effect... .. opportunity to invite at least one invitee user to bid on the swap in a **auction**; means for electronically inviting the at least one invitee user to participate in the **auction**; means for providing the at least one invitee user with an opportunity to place a bid on the swap in the **auction**; means for completing the **auction**; means for identifying a particular one of the at least one invitee user; means for... .. electronic derivatives trading System for allowing users to bid on derivatives in an electronic derivatives

auction, comprising: means for providing an electronic **auction** for a derivative; means for providing to each user of a plurality of users an opportunity to electronically bid on the derivative in the **auction**; and means for providing to each user of the plurality of users the bids of... ...An electronic trading system for allowing users to bid on financial instruments in an electronic **auction**, comprising: means for providing an electronic **auction** for a financial instrument; means for providing to each user of a plurality of users an opportunity to electronically bid on the financial instrument in the **auction**; means for completing the **auction**; and means for downloading a winning bid of the **auction** to a risk management or back office system of one user of the plurality, 7... ...electronic trading system for allowing users to obtain bids on financial instruments in an electronic **auction**, comprising: means for providing a user with an opportunity to indicate terms for an offer... ...a financial instrument using a specialized electronic termsheet; and means for providing an electronic **auction** for the financial instrument having the offer terms indicated by the user using the specialized... ...least one other user whom the user wishes to invite to participate in an electronic **auction** for the financial instrument; means for electronically inviting the indicated at least one other user to participate in the electronic **auction**; and means for providing the electronic **auction** for the financial instrument having the offer terms indicated by the user. 124. An electronic... ...system for allowing users to bid on financial instruments comprising: means for providing an electronic **auction** for a financial instrument offered by an offering user; means for providing to each **bidding** user of a plurality of **bidding** users an opportunity to electronically bid on the financial instrument in the **auction**; and means for creating a binding agreement to trade the financial instrument between the offering user and a **bidding** user of the plurality of **bidding** users by completing the **auction**. 125. An electronic trading system for allowing users to bid on financial instruments, comprising: means for providing an electronic **auction** for a financial instrument offered by an offering user; means for providing to each **bidding** user of a plurality of **bidding** users an opportunity to electronically bid on the financial instrument in the **auction**; and means for creating a binding agreement to trade the financial instrument between the offering user and a **bidding** user of the plurality of **bidding** users by providing the offering user and a **bidding** user an opportunity to electronically confirm the trade of the financial instrument. 126. An electronic trading system for allowing users to obtain bids on derivatives in an electronic derivatives **auction**, comprising: means for providing an offering user with an opportunity to indicate terms for an offer for a derivative; means for providing a **bidding** user with an opportunity to bid on the derivative in an electronic derivatives **auction** based on the offer; and means for electronically transferring funds between the offering user and the **bidding** user in accordance with the bid and the offer.

11/K/38 (Item 11 from file: 349)

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PCT FULLTEXT

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SYSTEM AND METHOD FOR AN ON-LINE INDUSTRY AUCTION SITE

	Country	Number	Kind	Date
Patent				19

Detailed Description:

SYSTEM AND METHOD FOR AN ON-LINE INDUSTRY AUCTION SITE CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims priority to U. S. Provisional Patent... ..Ser. No.

60/200,064 filed April 27, 2000 by David G. Fox, entitled Industry **Auction** Site," the entire subject matter of which is herein incorporated by reference.

BACKGROUND OF THE... ..or industry. An embodiment of the present invention provides a World Wide Web ("Web") based **auction** site for conducting and facilitating transactions in an industry.

1 5 Description of the Related... ..method of selling not currently used by commodity suppliers/buyers is to use an online **auction**. One of the largest and most well known on-line trading community is available from. eBay™ (<http://www.ebay.com>). An on-line **auction** is similar to a live **auction** in that buyers bid for an item and compete against one another to win the right to purchase the item.

by placing the highest bid. Bidders in on-line **auctions** can be anywhere around the globe, as long as they are connected to the on-line **auction** site via a network. Because the bidders are not co-located, on-line **auctions** typically have a preset start (open) and end (close) time. This allows the bidders to log in to the on-line **auction** when it is convenient, but does not require them to be present to win. Typical on-line **auctions** have algorithms implemented by software to determine which bidder is the high bidder, thus eliminating the need for a live **auction** representative. Since on-line **auctions** in use today do not have a moderator or **auction** representative; once a bid has been placed, it is not possible to withdraw the bid, even if it was a mistake.

A number of terms specific to **auctions** are defined below as a basis for the description provided herein.

English **Auction**: The English **auction** format is an ascending-price offering, meaning that, in general, bids must be higher in... ..of them.

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Basic rules for English Offerings (although these rules are simpler if the **auction** has only one lot, such as one railcar).

Each **bidding** participant is allowed one current bid in the offering at a time.

A subsequent bid... ..user replaces that user's existing bid if (inverted exclamation mark) it passes validation.

Each **bid** includes a **bid quantity** and **bid price**.

If more than one (1) item is available for sale, bidders can specify whether... ..fulfillment of their requested quantity or will accept only the full amount of their requested **quantity**.

0 All **bids** must be equal to or greater than the starting bid of the offering.

The **auction** defines the minimum bid required based on the offering's starting **bid**, the **quantity** available, the currently winning bids, and whether the bidder already has a bid in the offering.

Bidders cannot decrease the price or **quantity** of a prior **bid**.

Winning an English **Auction**: The rules for determining a winning bid (known as the **bidding** algorithm) in a

standard English offering are ...algorithm follows.

best Price wins.

a tie in price will be won by the highest **bid quantity**.

a tie in price and quantity will be won by the earliest bid time.

Reverse Auctions: Reverse, or buy, offerings are somewhat like "want ads"; instead of posting an item for sale, the **auction** representative posts a notice for an (inverted exclamation mark) item. that a user wishes to... from a given user replaces that user's existing bid if it passes validation.

Each **bid** indicates a **quantity** and price that the seller is offering. Unless the **auction** is posted as an "all or nothing" **auction**, sellers can specify whether they

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will provide a partial fulfillment of the requested quantity or will provide the full amount of the requested **quantity**. All **bids** must be equal to or lesser than the opening price of the offering. The **auction** defines the maximum bid required based on the offering's opening price, the quantity available... offering. Bidders cannot increase the price of a prior bid. Also, bidders cannot decrease the **quantity** of a prior **bid**.

Open and Close Times: **Bidding** can begin at the scheduled opening time. An **auction** will normally close at the scheduled closing time. However, the **auction** may remain open for an extended period of time if **bidding** activity continues near the end of the **auction**. These **auction** extensions allow bidders to respond to lastminute competing bids.

Opening Price and Reserve Price: The opening price determines the starting price of the **auction**. The reserve price is a **bidding** limit used to prevent a sale at a catastrophically low price. The opening price is shown on the **bidding** screen.

The reserve price is not shown.

BRIEF SUMMARY OF THE INVENTION

It is therefore provided herein a method and system for providing an online **auction** for conducting and facilitating transactions in a commodity goods marketplace or industry.

An embodiment of the present invention provides a World Wide Web ("Web") based **auction** site for conducting and facilitating transactions in the chemical industry. The **auction**-based model allows a supplier to sell (or buy) goods closer to a real market... by the supplier for the same quantity of goods/commodity.

The present invention provides an **auction** site that provides an on-line virtual community for the exchange of products, equipments and goods. An embodiment of the present invention may be implemented as an industry **auction** site where goods, products and services specific to a particular industry are substantially continuously offered for sale.

The **auction** site may form the center of a community that includes, but is not limited to... an entire industry on one level and segments of that industry on other levels. The **auction** site may function as a market maker to facilitate the buying and selling of the commodity goods.

According to the system and method described herein, the **auction** site provides a location for buyers and sellers of goods, products and equipment to congregate and consummate transactions. In an embodiment of the present invention, the **auction** site is advantageously implemented as a virtual **auction** site on the World Wide Web, and the buying/selling process is performed through the use of **auction** software.

An advantage of the system described herein is that the **auction** site will provide increased liquidity for industry goods and services. By providing a congregation point for buyers and sellers, the **auction** site facilitates finding sellers during times of high demand for products, and finding buyers during times of high supply of products.

In another embodiment, the **auction** site charges a transaction fee, for example as a percentage of the deal price, in order to fund the overhead costs of the **auction** site, and to provide a return on investment to the party or parties that invest in forming the **auction** site.

As will be understood by those of ordinary skill in the art, members of... ..sellers of commodities, as well as outside parties, may be investors in the **1 5 auction** site.

The system for conducting and facilitating transactions has an **auction** site for conducting and facilitating transactions in a selected industry, for instance the chemical industry as further described below. The **auction** site is connected to a global computer network, such as a site on a computer... ..military network or the like, with the site accessible via a standard Web browser. The **auction** site is implemented to enable private **auctions**.

According to the system and method, an **auction** representative pre-qualifies users based on pre-determined criteria. After successful pre-qualification, a user may be granted access to a private **auction** on the **auction** site. There are typically two (2) types of users of the **auction** site: (1) **auction** representatives and (2) bidders.

An **auction** representative has access to the **auction** site via an **auction** representative interface which allows the **auction** representative to create a new **auction** and activate it (post it) on the **auction** site. Based on the desired pool of bidders, the auction representative can create new authorized bidders or authorize current users for the **auction** site, **auction** categories, or individual **auctions**. Once a user/bidder has been created and authorized for an **auction**, the system automatically sends electronic notification messages to the bidder. Types of messages that might be sent are (a) a reminder to selected bidders for an **auction** at a predetermined time prior to the **auction** open time; (b) a notice to a first bidder when the first bidder is outbid... ..a second bidder; (c) a message to winning bidders following the close of

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the **auction**, notifying each winning bidder of their winning bid; (d) a message to losing bidders following the close of the **auction**, notifying each losing bidder of their losing bid.

The user/bidder may modify his/her... ..notifications that are to be sent. Further, an electronic message is sent to the posting **auction** representative identifying winning bidders. One advantage of the system described herein is that the notification messages are time stamped with a user's local time. In other words, if an **auction** is to begin at 3:00 PM PST, and the user is located in New York, the automatic message reminds the user of an **auction** beginning at 6:00 PM EDT. This reduces the chance that a user will miss... ..miscommunications regarding start and end times. This conversion is possible because each user in the **auction** site system has a corresponding user modifiable profile which holds their default time zone.

The system and method utilizes a user interface to enable interaction between the **auction** and the users. Time of day information presented in the user interface automatically conforms to the user's preferred time zone. A bidder selects an **auction** on the **auction** site 5 from a list of **auctions** authorized for that bidder. The user does not see **auctions** that are not authorized. Once connected to the

auction

, the users compete with bids for an item in the selected **auction**. A bid is valid and accepted by the system if it meets a pro-determined criteria such as whether (a) the **auction** is open, (b) a numerical difference between the bid and the current winning bid is greater than a selected threshold, and (c) the **bidding** user is authorized. A bidder may view previous bids in the selected **auction**, but cannot see the identity of the competing bidders. An authorized **auction** representative may see all bidder identities. An auto bid facility is also enabled. An auto... ..viewed with reference to the description, wherein.

Figure 1 is a block diagram of an **auction** site available via the World Wide Web; Figure 2 is an illustration of a screen in an exemplary user interface, listing authorized **auction** categories;

Figures 3 and 3A illustrate screen shots in an exemplary user interface for listing authorized **auctions** and status thereof;

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Figures 4A and 4B illustrate a **bidding** screen in an exemplary user interface; Figures 5A and 5B illustrate a user profile viewing... ..exemplary user interface;

Figure 6 is a block diagram illustrating an exemplary embodiment of the **bidding** method of the present invention; and

Figure 7 is a block diagram illustrating an exemplary embodiment of the pre-**auction** and post-**auction** features of system and method described herein.

DETAILED DESCRIPTION OF THE INVENTION

In an exemplary embodiment, the system for conducting and facilitating transactions has an **auction** site for conducting and facilitating transactions in a selected industry, for instance the chemical industry. The **auction** site is connected to a global computer network, such as a site on a computer... ..the Eke, with the site accessible via a 1 5 standard Web browser. The exemplary **auction** site utilizes private **auctions**.

In the exemplary embodiment, the community of the system and method is implemented as a "virtual" community in conjunction with the **auction** site, as a site on a computer network with access to the World W(inverted... ..level block diagram of an exemplary embodiment of the system and method described herein.

An **auction** site 100, physically located in Southern California, is connected to users 1-3 (1 02a... ..is located in northern Virginia, and user 3 is located in Nevada. Thus, if an **auction** begins at 1 PM PST, only user 3 (102c) will have the same local time as the **auction** site.

Timing information (start and end times) can be easily misconstrued by auction users.

These errors can cause a potential bidder to miss an **auction** altogether, or a bidder to delay

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accessing the **auction** site for a re-bid long enough to miss the opportunity to outbid the current... ..information to be presented in the user's local time zone format. Thus, if an **auction** begins at 1 PM PDT, user 1 (1 02a) is notified that the **auction** begins at 3 PM CDT, user 2 is notified that the **auction** will begin at 4 PM EDT and user 3 is notified that the **auction** will begin at 1 PM PDT.

Auctions on the **auction** site are by invitation only. This allows the **auction** representative to pre-qualify potential bidders. Optimally, the only users invited to bid at an **auction** would be anyone having a need to buy (or is a reverse **auction**, sell) the item, with significant credit and business relationship with the offering entity. When an **auction** is anticipated, potential bidders are assigned a username and password, in advance, through an **auction** representative user interface, that gives them access to the **auction** schedule and the **bidding** floor. To participate in an **auction**, buyers must accept a "Bidder Agreement" which is displayed each time when logging in. This agreement acknowledges that all bids placed in 15 an **auction** reflect a binding, irrevocable commitment on behalf of the bidder to purchase or sell product at the bid price. Anyone **bidding** on behalf of another party or entity must demonstrate to the satisfaction of an **auction** site authority to do so before any bids are placed.

An **auction** representative having access to the **auction** site via an **auction** representative interface creates new **auctions** and activates them (posts them) on an **auction** site. **Auctions** can be categorized and bidders can be placed in a group that has access to all **auctions** in a specified category of **auctions**. These categories and user groups are defined and enabled by the **auction** representatives. Based on the desired pool of bidders, the **auction** representative can create new authorized bidders or authorize current users for the **auction** site, **auction** categories, or individual **auctions**.

Once a user/bidder has been created and authorized for an **auction**, the system automatically sends electronic notification messages to the bidder. Types of messages that might be sent are (a) a reminder to selected bidders for an **auction** at a pre-determined time prior to the **auction** open time; (b) a notice to a first bidder when the first bidder is outbid by a second bidder; (c) a message to winning bidders following the close of the **auction**, notifying each winning bidder of their winning bid; (d) a message to losing bidders following the close of the **auction**, notifying each losing bidder of their losing bid. The user/bidder may modify his/her... ..notifications that is to be sent.

Further, an electronic message is sent to the posting **auction** representative (notifying) winning bidders. One advantage of the system, described herein is... ..messages are time stamped with a user's local time. In other words, if an **auction** is to begin at 3:00 PM PDT, and the user is located in New York, the automatic message reminds the user of an **auction** beginning at 6:00 PM EDT. This reduces the chance that a user will miss... ..miscommunications regarding start and end times. This conversion is possible because each user in the **auction** site system has a corresponding user modifiable profile which holds their default time zone.

Referring now to Figure 2, a user/bidder logs on the **auction** site 100 (Figure 1) with a username and password. Once the bidder's identity is authenticated, the bidder sees a list of **auction** categories. In the exemplary embodiment the categories are practice **auctions** 201, 10 product **auctions** 203, and equipment **auctions** 203. It will be apparent to one of ordinary skill in the art that these categories will change based on the industry running the **auction** site. It will also be apparent to one of ordinary skill in the art that... ..to implement several industries on one home page, thus building a multi layered community of **auction** sites. Further, different categories of **auctions** allow a range of 15 users to enter the **auction** site without being limited to goods of a single industry or commodity base. Only categories... ..on the screen. For instance, if a user is only authorized to participate in practice **auctions**, only the practice **auctions** link 201 is shown. Thus, not only are the categories of product **auctions** 203, and equipment **auctions** 203 not shown, but they are inaccessible to the user.

The user may navigate deeper into the **auction** site by selecting an **auction** category.

Referring now to Figure 3, within each **auction** category, the user may find sub-categories (not shown) and specific **auctions** 301 and 303. When a user sees an **auction** listed, it will be in a "NEW" 305 or "OPEN" 307 state. "New" indicates that the **auction** is scheduled to begin sometime in the future. "Open" indicates that the **auction** is currently open for bids. The scheduled open (start) and close (end) times will be shown also 309. If the **auction** is open, the

leading bid 311 will also be shown on this screen.

One should note that the scheduled **auction** times 309 are listed in the user's default time zone. If a user changes... ..discussed below), then this screen will reflect that change. For example, the Practice Fruit Punch **auction** is open and is scheduled to close at December 31, 2001, 2:24 PM PDT... ..is set to Eastern Daylight Time. The close date/time for the Practice- Fruit Punch **auction** 309A now shows December 31, 2001, 5:24 PM EDT. This conversion is performed automatically, and it is

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transparent to the user in which time zone the **auction** is actually being held. This feature is a significant value added over the prior art.

In order to bid on an item, the user clicks on an **auction** name 313 and the **bidding** screen is displayed, as shown in Figure 4A. In an exemplary embodiment, a user must scroll down to the bottom of the page in order to see details regarding this **auction** and the terms of sale, as shown in Figure 4B. It will be apparent to... ..page" tactic to ensure that (a) a printout will list the entire conditions of the **auction** and (b) the bidder has viewing access to the additional **auction** information. If the **auction** is open the user will see a "Next Bid" prompt 401 for placing a bid. Previous bids will be shown in the Latest Bids section 403.

Each **auction** has an opening bid (starting price) 405 and a minimum Bid Increment 1 5 (or... ..the "Bid" button 409 to place a bid.

If "Auto Bids" are allowed in this **auction**, the bidder will see an Auto Bid checkbox

411 beneath the Next Bid prompt 401. This box is checked if the bidder wants the bid

placed as an Auto Bid... ..bidder's chance of winning. When a bidder places an Auto Bid in an English **auction**, the bidder is specifying the maximum that he/she is willing to pay for the **auction** item. Auto Bids should be used when a maximum purchase price the bidder is willing... ..Latest Bids` section. Moreover, a bidder does not need to remain logged in to the **auction** site if an Auto Bid was placed. The system continues to place bids for the auto **bidding** bidder up to the maximum specified, and at the minimum interval when the auto bidder... ..1) best price wins.

(2) a tie in price will be won by the highest **bid quantity**.

(3) a tie in price and quantity will be won by the earliest bid time.

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While an authorized

auction representative can see which users are

bidding in an **auction** (past and current bids), the **auction** representative cannot see a specific bidder's maximum.

Auto Bid amount. The maximum Auto Bid is intentionally hidden to protect the **bidding** strategy and privacy of the bidder. Further, the system will send "Outbid", "**Auction** Win", or `**Auction** Loss` e-mail notifications throughout the **auction** for Auto Bids, just as it does with a regular bid.

Most **auctions** will involve only one (1) item for sale. However, if an **auction** contains multiple quantities, a bidder can specify the number desired in a quantity prompt (not... ..indicated. This option can 1 0 be used if the bidder must have the complete **quantity bid**.

Once a **bid** has been placed, a confirmation screen is displayed acknowledging that the bid has been accepted...
...explain why the bid was not allowed. The bidder can then go back to the **bidding** screen to correct the bid, or view the latest status.

1 5 The information on the **bidding** screen is updated each time the screen is newly displayed. Optionally, a user can select... ..set to manual, the Web browser "Refresh" button must be selected to ensure the latest **bidding** activity is displayed. In other cases, the bidding activity is not older than the selected refresh... ..the user's bid will appear in the Latest Bids section 403. In mula item **auctions**, the quantity column (not shown) will show data in the form of "a/b" where... ..locations, as well, to account for different costs to produce or ship the items.

An **auction** will close at it's scheduled close time. Some **auctions** may be setup for automatic time extension to handle the possibility that **bidding** will continue in the final minutes of the **auction**. If this feature is enabled, the exact extension behavior will be explained in the **auction** invitation email message. The **auction** will continue to extend until **bidding** activity subsides and the **auction** closes. In 1 his way, "snipers", or users who initiate a winning bid moments before end... ..outbid others and succeed in the bid, are thwarted. Thus, there is no disincentive to **bidding** early.

In the exemplary embodiment, the following events prompt a notification to be automatically sent by electronic mail (e-mail) to appropriate the user: (a) when a new **auction** is created; (b) when an **auction** opens; (c) when your bid has been outbid by another bidder; (d) when the user has won an **auction**; and (e) when the user has lost an **auction**. In alternative embodirments, the users can elect to disable any of these email notifications in... ..profile contains many items that control the user's account and prescribes preferences at the **auction** site. By clicking on Tdit Your Profile`, as shown in Figure 2 (207), a user... ..a requested modification.

One advantage of the systein and method described herein is the offline **auction** review feature. A typical on-line **auction** is not moderated or reviewed after closing. Thus, in a typical **auction**, the winning bidder at closing is automatically notified of the win, and all other bidders are notified of a loss. In the present systeini and method, an **auction** representative is optionally given the opportunity to review the final **auction** bids before the "Won" and "Loss" e-mail notices are sent by the system. When offline **auction** review is enabled, the **auction** will close as usual. However, the winning and losing e-mail notices will be temporarily delayed while the **auction** representative reviews the final bids for completeness and accuracy. After the bids havebeen reviewed, the **auction** representative 12

will finalize the **auction** and the e-mails will be sent. This feature is a significant value added over the prior art.

Another advantage of a moderator/**auction** representative is that erroncous bids can be cancelled by the **auction** representative. Once a bidder has realized that an erroneous bid has been made, the bidder sends a request to the **auction** representative to erase the bid. The **auction** representative has the authorization to see and modify all bids and their corresponding bidders. If a bidder seems to abusing this capability, they can be blocked from the **auction** site (or individual **auctions**) either temporarily or pennanently (e.g., disqualified).

In another embodiment, the on-line community comprises the **auction** sites and links to other services used by the community. For instance, is the communitY or an individual **auction** is related to the chemical industry, a link might be added to the **bidding** screen that enables the bidder to select a delivery carrier specializing in shipping hazardous chemicals... ..Figure 6, there is shown is a block diagram illustrating an exemplary embodiment of the **bidding** method of the present invention. An authorized user (bidder) logs on to the **auction** site through a user interface. In the exemplaiy embodiment, the user interface is a accessed over a global network using a standard Web browser. The user logs on the **auction** site in block 601 by providing a username and password for authentication. Once logged on... ..pages, or screens.

In order to bid on an item, the user must select an **auction** in block 603 from a list of available and authorized **auctions**. The user may see a single list of **auctions**, or may be directed to a number of **auction** "rooms" or categories, which will contain lists of related **auctions** to which the user has been granted access. The user will see only those **auctions**, or **auction** rooms (categories) to which he/she has been granted access. Once there, the user can view current and previous **auction** bids (block 607), or place a new bid (block 609). As

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discussed above, a... ..another user places a winning bid.

If the user has been granted access to many **auctions**, (inverted exclamation mark) it may be difficult to find a specific **auction** among the many different **auction** rooms or categories. Therefore, a search feature is available (block 611). When the user... ..presented which allows the user to search for either a specific item or a specific **auction**.

Search criteria available for searching includes **auction** name, item name, open time, close time, **auction** id, item id, and **auction** quantity. It will be apparent to one of ordinary skill in the art that other criteria specific to an **auction** may be searched as well, for instance, location of warehouse, industry of interest, etc. Regardless of the search method used, only those authorized **auctions** will appear in the search results list. The list of **auctions** found in the search will typically be presented as hyperlinks so the user can navigate directly to a desired **auction**.

15 At any time, the user may select the option to edit his/her... ..logging in, at the moment. This feature reduces the risk of a user missing an **auction** because he/she forgot to add or subtract: hours from the posted start and end times of an **auction**. All screens showing time of day information and e-mail notifications will be automatically adjusted... ..the item(s) bid on (block 613). This feature is an integral part of the **bidding** screen and can allow multiple users to concurrently maintain winning bids, providing that the items on which they bid are from different locations.

In another alternative embodiment, the **auction** site is part of a larger on-line community. The on-line community may be... ..areas of the Web site, that are authorized. Thus, the user in the chemical industry **bidding** on polyvinyl chloride will not know that there are also users of the food

14

industry **bidding** on fruit punch. However, because the **auction** is integrated with the on-line community, the user will be able to select community... ..user.

The access and automatic notification features are made available through careful planning by an **auction** representative. Referring now to Figure 7, there is shown a block diagram illustrating an exemplary embodiment of the pre-**auction** and post-**auction** features of the system and method described herein. Before an **auction** is scheduled, potential bidders are identified by the **auction** representative. A username and password are created in the system for each potential bidder (block 701), if not already created for a prior **auction**. The users are then associated with categories and/or individual **auctions** to which they are granted access. An **auction** representative schedules and posts an **auction** to the site in block 703.

15 The **auction** is associated with an item, or items, for sale or to buy, a start time, an end time, and a set of **auction** specific rules, i.e., minimum bid, reserve bid, minimum bid increment (decrement for reverse **auctions**), etc.

When a user has been granted access to a scheduled **auction**, the user is automatically notified with an invitation message in block 705. The system automatically opens the **auction** at the scheduled time, and an additional reminder/invitation message is sent to the authorized users via e-mail. Throughout the **auction**, a variety of **auction** events will trigger additional automatic e-mail messages to the users authorized for that **auction** in block 707, as described above. The system will automatically close an **auction** at the scheduled end time.

In a further embodiment of the method and system, an... ..is available in block 709. This feature is enabled during

the scheduling phase of the **auction**, but is not acted upon until the scheduled end time. If bidders make bids very close to the end of the **auction**, the **auction** is automatically extended by a pre-determined amount of time. This prevents what is commonly referred to as "sniping," e.g., waiting until moments before the **auction** closes to place a small incremental winning bid and preventing competing bids to be entered (the **auction** ends before competitors can place a bid).

Another embodiment allows an **auction** representative to review the **auction** results in block 711, before automatic winning and losing notifications are sent to the users. This allows human intervention to ensure fair and proper execution of the

auction.

15
Various preferred embodiments of the invention have been described in fulfillment of the various...

Claims:

...system, for conducting and facilitating transactions in a commodity goods marketplace or industry, comprising: an **auction** site for conducting and facilitating transactions in a selected industry, the **auction** site connected to a global computer network and accessible via a standard Web browser, wherein the **auction** site enables private **auctions**; a pre-qualifier for pre-qualifying users, wherein after successful pre-qualification, a user is granted access to a private **auction** on the **auction** site; a message notifying delivery component for automatically sending electronic messages to users, the electronic messages notifying the users of information specific to an **auction**, wherein time of day information is presented in a user's local time zone; an **auction** representative interface for: (1) posting an **auction** to the **auction** site by an authorized **auction** representative, (2) creating users, (3) managing users, and (4) initiating invitations to users to join a scheduled **auction**; and a user interface for: (1) selecting an **auction** on the **auction** site, where a list of **auctions** from which a user selects an **auction** comprises **auctions** to which the user has been invited, (2) **bidding** for an item in a selected auction, wherein a bid is valid if (inverted exclamation mark) ...numerical difference between the bid and a current winning bid is greater than a selected **threshold**, and (c) the **bidding** user is authorized, and wherein only valid bids are accepted by the **auction** site; (3) viewing previous bids in a selected **auction**, where for a viewed bid, information used to identify the user who placed the viewed bid remains hidden to other users, but is open to authorized **auction** representative personnel, and (4) enabling a first user to "auto bid" during an **auction**, where an auto bid allows the first user to specify a maximum bid above a... ...sends an invitation to a user who has been selected as a bidder for an **auction** when the **auction** (inverted exclamation mark) is created, wherein the user (inverted exclamation mark) is pre-qualified and created as a user in the **auction** site prior to being selected as a bidder.

3 A system as recited in claim... ...inverted exclamation mark)ng delivery component automatically sends a reminder to selected bidders for an **auction** at a pre-determined time prior to the **auction** open time.

4 A system as recited in claim 2, wherein the message notifying delivery... ...bidders of the losing bids.

7 A system as recited in claim 2, wherein an **auction** representative posts the **auction** via the **auction** representative interface and the message notifying delivery component automatically sends a message to the posting **auction** representative identifying winning bidders. 8 A system as recited in claim 2, wherein an **auction** (inverted exclamation mark) is created with a review feature, the review feature causing a review delay requiring interaction

and review by an **auction** representative before the message notifying delivery component automatically sends a message to bidders with a... ..recited in claim 1, wherein a user (inverted exclamation mark)s presented with a selection of **auctions** for which the user (inverted exclamation mark)s authorized and unauthorized **auctions** are not viewable by the user, and wherein the user (inverted exclamation mark)s identified... ..determine authorization levels.

10 A system as recited in claim 1, where a plurality of **auctions** are created for the **auction** site, the plurality of **auctions** being segregated into distinct groups, wherein a user has access to all **auctions** in an authorized group.

18. A system as recited in claim 1, wherein a modifiable... ..wherein a history of winning and losing bids by a user is viewable to the **bidding** user via the user interface.

15 A system as recited in claim 1, wherein the user interface allows a user to search the **auction** site for a selected **auction**.

16 A system as recited in claim 15, wherein search criteria for the **auction** search comprises at least one item selected from the group consisting of: **auction** name, item name, open time, close time, **auction** id, item id, and **auction** quantity. 15 17. A system as recited in claim 1, wherein bids identical in a list of bids for an **auction** at a user selectable refresh rate.

19 A system as recited in claim 1, wherein... ..to ship the auctioned item.

20 A system as recited in claim 1, wherein an **auction** is created with a start time and an **end** time, the **end time** being **automatically extended** by a pre-determined amount of time when a user places a valid bid within... ..enabling transactions in a commodity goods marketplace or industry, comprising: posting, by an authorized user (**auction** representative), an **auction** to an **auction** site for conducting and facilitating transactions in a selected industry, the **auction** site connected to a global computer network and accessible via a standard Web browser, wherein the **auction** site enables private **auctions**, and wherein posting further comprises scheduling the auction; creating users, by an **auction** representative, on the **auction** site, each user being a member of at least one group, wherein each group has access to at least one selected **auction**, and wherein a user has access to **auctions** associated with a user's group, but does not have access to **auctions** not associated with the user's group, and wherein users are prequalified before being granted access to a private **auction** on the **auction** site;; managing users, by an **auction** representative, for adding, modifying and deleting users from the **auction** site and selected **auctions**; initiating invitations to users to join a scheduled **auction**; and automatically notifying users of **auction** events by sending electronic messages to the appropriate users, wherein time of day information in... ..facilitating transactions in a commodity goods marketplace or industry, comprising: posting, by an authorized user (**auction** representative), an **auction** to an **auction** site for conducting and facilitating transactions in a selected industry, the **auction** site connected to a global computer network and accessible via a standard Web browser, wherein the **auction** site enables private **auctions**, and wherein posting further comprises scheduling the **auction**; 5 creating users, by an **auction** representative, on the **auction** site, each user being a member of at least one group, wherein each group has access to at least one selected **auction**, and wherein a user has access to **auctions** associated with a user's group, but does not have access to **auctions** not associated with the user's group, and wherein users are prequalified before being granted access to a private **auction** on the **auction** site;; managing users, by an **auction** representative, for adding, modifying and deleting users from the **auction** site and selected **auctions**; initiating invitations to users to join a scheduled **auction**; automatically notifying users of **auction** events by sending electronic messages to the appropriate users, wherein time of day information in the message is presented in a user's local time zone; selecting an **auction** on the **auction** site, by a **bidding** user (bidder) where a list of **auctions** from which the bidder selects an **auction** comprises **auctions** to which the bidder has been invited and granted access; **bidding** for an item in a selected **auction**, by a bidder, wherein a bid is valid if (inverted exclamation mark)t meets a... ..bid and a current winning bid is greater than a selected threshold, and (c) the **bidding** user (inverted exclamation mark)s authorized, and wherein only valid bids are accepted by the

auction site; 20 viewing previous bids in a selected **auction**, where for a viewed bid, information used to identify a bidder who placed the viewed bid remains hidden to other bidders, but is open to authorized **auction** representatives; and enabling a first bidder to "auto bid" during an **auction**, where an auto bid allows the first bidder to specify a maximum bid above a... to a user who has been selected as a bidder for an auction when the **auction** is created, wherein the user is pre-qualified and created as a user in the **auction** site prior to being selected as a bidder.

24 A system as recited in claim 23, wherein automatically notifying users sends a 1 5 reminder to selected bidders for an **auction** at a pre-determined time prior to the **auction** open time.

25 A system as recited in claim 23, wherein automatically notifying users sends... of the losing bids.

28 A system as recited in claim 22, wherein posting an **auction** is performed using an **auction** representative interface and once posted, the **auction** representative interface creating an event which triggers an automatic message for automatically notifying the posting **auction** representative of winning bidders of the posted **auction**.

29 A system, as recited in claim 22, further comprising reviewing results of an **auction**, by an **auction** representative, wherein if reviewing is enabled, automatically notifying users of **auction** events is delayed until the reviewing (inverted exclamation mark)S complete.

30 A system, as recited in claim 22, wherein a bidder is presented with a selection of **auctions** for which the bidder is authorized and unauthorized **auctions** are not viewable by the bidder, and wherein the bidder is identified by a username... to determine authorization levels.

21. A system as recited in claim 22, wherein posting an **auction** is repeated for a plurality of **auctions**, each of the plurality of **auctions** being segregated into distinct groups, wherein a user has access to all **auctions** in an authorized group.

32 A system as recited in claim 22, wherein creating a... A system as recited in claim 22, further comprising searching for a selected 1 5 **auction** in the **auction** site via a user interface.

37 A system as recited in claim 36, wherein search criteria for the searching comprises at least one item selected from the group consisting of.

auction name, item name,
open time, close time, **auction** id, item id, and

auction quantity.

38 A system as recited in claim 22, further comprising ranking bids placed by... 39 A system as recited in claim 22, further comprising selecting a refresh rate for **bidding** screens, by a user, wherein a **bidding** screen presents a list of current and previous bids in an **auction**.

40 A system as recited in claim 22, further comprising selecting, by a winning bidder... to ship the auctioned item.

41 A system as recited in claim 22, further comprising **automatically extending** a pre-determined scheduled **end** time for an **auction**, by a pre-determined amount of time, when a bidder places a valid bid within...

11/K/39 (Item 12 from file: 349)

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PCT FULLTEXT

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	Country	Number	Kind	Date
Patent				19

Detailed Description:

...of a trial order in system 5;

Fig. 99 is a chart showing processing during **auction** discovery in system 5; Fig. I 00 is a chart showing superbook processing ...such as royalty rights or settlement amounts for a dispute. Accordingly, the terms "buying selling," "**bidding**" and "offering" should be understood from context.

System 5 facilitates competition among trading methodologies, rather...order;

Counter-offer by proposing a different price;

0 Request that the oU conduct an **auction** for its order;

0 Request a stop;

0 Choose to join the crowd for the...mE 50 sends an acknowledgement (ACK) to the receiver.

Processing is now complete. Generally, the **response** indicates a **number** of shares that was acted upon. In some cases, such as a cancel, the response...price is determined based on an order book and with a price improvement mechanism: an **auction** for the crowd of oEs registered with the umpire. The price improvement mechanism is operative... ..discovery and during execution. During discovery, an inquiring order ELF can indicate that it "accepts **auction** mode" meaning that if an order ELF in the crowd provides a better price than... ..superbook umpire notifies order ELFs in its crowd of the opportunity to improve the price.

"**Auction**" meaning that the price is determined by an **auction** according to predetermined **auction** rules,

0 "Match" meaning a process with three aspects: 1) pairing, 2) price assignment, and...TI Method T2 Methodology

0 book 0 standard book

Infinity book 0 blind book

value **auction** Not applicable Dutch **auction**

value external value Not applicable match

value negotiation (inquiry type) 0 inquiry

value superbook I...an oE;

Responding to a counter-offer from an oE; and

Conducting an on-demand **auction** to promote, pairings between orders

in

the ELF crowd and booked orders.

To illustrate the...and did not offer a choice of negotiation methods as does system 5.

Service: Crowd **auction** during discovery

All umpires are assumed to have a book of orders. Any umpire that has a crowd may choose to support **auction**

mode price discovery, either as a default or by request from an ELF. It will be appreciated that some order processing methods are suitable for **auction** price discovery, such as book and superbook methods, while other order processing methods are not suitable for **auction** price discovery, such as periodic match methods.

When an order umpire is providing discovery with **auction** mode, the order umpire responds to price inquiries after an interval of up to a... ..crowd response is an order that was provoked by the active-side order ELF's **auction** mode discovery request. The active-side order ELF is not obliged to take the book... ..take the price.

Fig. 99 provides an example of superbook processing during discovery.

Service: Crowd **auction** during execution

An umpire operating according to the superbook method will, when the order umpire...order. The superbook method is actually a combination of a book trading method and an **auction** trading method, with crowd **auctions** occurring to improve the price relative to the book's price. A superbook umpire may also support **auction** mode price discovery.

Fig. 100 provides an example of superbook processing during execution. See... ..being obtained from the book and the second contra-side portions being obtained through the **auction** form of crowd price improvement.

System 5 also provides much more sophisticated mechanisms for disclosing...an implementation of a pattern match system, whereas BidPlus is more akin to a dutch **auction** in which prices come down as **bidding** continues.

Optimark is directed to matching as many orders as possible, whereas BidPlus is directed... ..stop. This is a particularly advantageous procedure for linked orders, as platform services may need to **extend** the **duration** of a **stop** to guarantee prices for a linked order, and can readily **extend** the **duration** of the **stop** when its own stop order manager is responsible for declaring when a stop expires. This... ..by linked order execution manager 61 during execution of a linked order and operates to **extend** the **expiration time** of a **stop** for a predetermined amount, specified in the freeze or according to a default value, such... ..timer freeze is active, specifically, whether any timer freezes have been received, remain uncanceled, and **extend** the **expiration time**. If so, **stop** order manager 67 resets the stop measurement timer and returns to step 3004.

When the... ..the legs to be executed. In short, linked order execution manager 61 is able to **extend** the **duration** of all **stops** for the legs, to ensure none of the stops expire before the other stops are...start a process that requires it to enter the "in-process" state such as an **auction** or match, the umpire posts this change of state to system status board 74. Other...accept for the trade and to disclose to the public. In the case of an **auction**, this would be either the reserve (upset) price or the opening **bid** price.

Size The **number** of trading units being bid/offered.

Minimum Lot Minimum lot size of the order. If...by an amount, and the market trend is towards a better price, then request an **auction**. The fourth rule in Table 6, applied when none of the .10 prior rules have... ..twice then lopo previous offered) (take if within approved price)

XYZ < ask improve any & request **auction**

I Opo (trend = toward)

XYZ any any order room

1 5 Table 7 is similar... ..rebate paid by this Umpire for each trade executed with him. Another example is whether **auction** mode during discovery is supported.

TI How long this umpire takes to complete discovery.

In... ..is in. Time process. An example is how long this umpire takes to run an **auction**.

Stop fee The charge an umpire levies per share for issuing a stop.

T2 How...step 340 of Fig. 16, action parameters are specified, including special representation functions such as **auctions**, if any, and disclosure policies operative when oE 10 is in the crowd for an...as shown in Fig. 26 using its discover list. Processing continues at step 535.

During **auction** mode discovery, an inquiring order ELF can accept **auction** mode pricing, meaning that if any order ELFs in the crowd for the umpire provide... ..of the symbol being traded at oU 3 0, and states that oE IO accepts **auction** mode. Several scenarios are possible.

oU 30 has no crowd order ELFs, or none of...take other actions such as joining the crowd or posting at an umpire, triggering@ an **auction**, and so on. At step 691, if the action is to post an order to... ..10 uses the order umpire-specified method for acting, such as taking, posting, requesting an **auction**, requesting a stop, exercising a stop, counteroffering or joining the crowd. At step 708, oE...its local information, such as what is in order control table 130. If the inquiry **level** requires an umpire **response**, also referred to as level 2, then at step 5850, oE 10 sends an inquiry...point;

Stored price information from orders in the order book file kept by oU 30;

Auction among the crowd of oEs registered at oU 30;

Subscribe to feeds from selected dEs... ..improved price (not shown in this embodiment).

The arrival of an order that signals an **auction** process to hold an **auction**.

After oU 30 is setup, oU 30 makes information about its order handling methodology and...8 1, and then proceeds to step 1214.

At step 1212, oU 30 receives an **auction** request from an oE, invokes the logic shown in Fig. 82, and then proceeds to... ..level I messages are handled locally by an order ELF, and all other order inquiry **levels** require **responses** from appropriate umpires. At step 1214, oU 30 finds the order being inquired about in... ..request when oU 30 provides prices using the book method, the superbook method or an **auction** method. At step 5305, oU 30 uses its own its umpire decision table and decision... ..standby factor need not be used.

At step 5320, oU 30 checks whether it supports **auction** mode. If not, processing proceeds to step 5340. If oU 30 supports **auction** mode, and **auction** mode has been requested by the inquiring order ELF, then at step 5325, oU 30... ..as proportionally allocating the quantity or following a first-come-first-served strategy.

A discovery **auction** may occur at computer processing speeds, when all crowd ELFs are able to make decisions without guidance from their order rooms. However, when order room guidance is involved, the discovery **auction** occurs at much slower human response times.

At step 5340, oU 30 eliminates trial order...superbook method, oU 30 will advise its crowd of a price improvement opportunity. The crowd **auction** will take time, particularly if the **auction** is conducted at human **response** times, and the **quantity** at the best price is available to other order ELFs while an **auction** is occurring for the present active side order ELF.

After releasing the affirmed quantity at... ..1, oU 3 0 invokes the execution logic shown in Fig. 70, for the affirmed **quantity**; crowd **responses** are assumed to be implicitly affirmed. At step 1282, oU 30 releases any unused

affirmed...the orders at the best price of 17. Accordingly, oU 30 conducted a price improvement **auction** among its crowd of registered ELF's, got a response, indicated as order GG, for I... ..price had changed, from 17.2 to 17. Accordingly, oU 30 conducted a price improvement **auction** among its crowd of registered ELF's, but got no responses. So, order EE was returned...services 60.

Fig. 82 is a flowchart showing how oU 30 responds to receiving an **auction** request from an oE. At step 1710, oU 30 tells the oE's in its crowd that an **auction** is occurring. All crowd interaction is done under the in-process state, i.e., if... ..responses from the crowd, at step 1725, oU 30 advises the oE that requested the **auction** of the absence of responses. If there were response(s) from the crowd, at step 1730, oU 30 returns the responses to the order ELF that requested the **auction**.

The
bidding

ELF's are notified of the outcome and the **auction** request processing is now complete.

Fig. 83 is a flowchart showing stop request processing. At... ..process status in system status board 74.

Fig. 86 is a flowchart of sealed-bid **auction** processing by oU 30. Sealed-bid **auction** processing is a forced take situation. Generally, an active side oE will have requested an **auction** from oU 30. At step 1835, oU 30 selects an order from the book for **auction**, skipping each order with at least one umpire in its order tail that was in... ..if the bids are from ELF's incompatible with the one whose order is up for **auction** and ignores them if so.

After the best price has been discovered as described above... ..orders in its book. If so, processing returns to step 1835. If not, sealed-bid **auction** processing is complete.

Fig. 87 is a flowchart of match processing by oU 30. Match...the trial order to order room 72. See Fig. 39, step 898.

Use Case: Voluntary **auction** mode during discovery

Fig. 99 illustrates how an ...with a crowd, oU 30, and a crowd order ELF, oE 12, co-operate during **auction** mode discovery. In this example, oE 10 asks oU 30 for discovery with **auction** mode. oE 12 improves upon oU 30's book price, and oE 10 must tak... ..30, operative according to the superbok method, accompanied by an indication that oE 10 accepts **auction** mode. See Fig. 23, step 525, and Fig. 26, step 645.

At step 4620, oU... ..4685, oE 10 builds an action list, see Fig. 23, step 535.

Use Case: Automatic **auction** mode during execution (Superbook)

Fig. 100 illustrates how an active-side order ELF, oE...

11/K/40 (Item 13 from file: 349)

Fulltext available through: [Order File History](#)
PCT FULLTEXT

	Country	Number	Kind	Date
Patent				19

Detailed Description:

...of a trial order in system 5;

Fig. 99 is a chart showing processing during **auction** discovery in system 5; Fig. 100 is a chart showing superbook processing during execution...such as royalty rights or settlement amounts for a dispute. Accordingly, the terms "buying selling **bidding**" and "offering" should be understood from context.

System 5 facilitates competition among trading methodologies, rather...its order;

Counter-offer by proposing a different price;

Request that the oU conduct an **auction** for its order;

Request a stop;

Choose to join the crowd for the oU;

Take...mE 50 sends an acknowledgement (ACK) to the receiver.

Processing is now complete. Generally, the **response** indicates a **number** of shares that was acted upon. In some cases, such as a cancel, the response...price is determined based on an order book and with a price improvement mechanism: an **auction** for the crowd of oEs registered

with the umpire. The price improvement mechanism is operative... ..discovery and during execution. During discovery, an inquiring order ELF can indicate that it "accepts **auction** mode" meaning that if an order ELF in the crowd provides a better price than... ..superbook umpire notifies order ELFs in its crowd of the opportunity to improve the price.

"**Auction**" meaning that the price is determined by an **auction** according to predetermined **auction** rules,

* "Match" meaning a process with three aspects: 1) pairing, 2) price assignment, and 3...TI Method T2 Methodology
0 book 0 standard book

Infinity book 0 blind book

value **auction** Not applicable Dutch **auction**

value external value Not applicable match

value negotiation (inquiry type) 0 inquiry

value superbook L...an oE;

Responding to a counter-offer from an oE; and

Conducting an on-demand **auction** to promote pairings between orders
in

the ELF-crowd and booked orders.

To illustrate the...and did not offer a choice of negotiation methods as does system 5.

Service: Crowd **auction** during discovery

All umpires are assumed to have a book of orders. Any umpire that has a crowd may choose to support **auction** mode price discovery, either as a default or by request from an ELF. It will be appreciated that some order processing methods are suitable for **auction** price discovery, such as book and superbook methods, while other order processing methods are not suitable for **auction** price discovery, such as periodic match methods.

When an order umpire is providing discovery with **auction** mode, the order umpire responds to price inquiries after an interval of up to a... ..crowd response is an order that was provoked by the active-side order ELF's **auction** mode discovery request. The active-side order ELF is not obliged to take the book... ..take the price.

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Optimark is directed to matching as many orders as possible, whereas BidPlus is directed... ..This is a particularly advantageous procedure for linked orders, as platform services may need to **extend** the **duration** of a **stop** to guarantee prices for a linked order, and can readily **extend** the **duration** of the **stop** when its own stop order manager is respon@ible for declaring when a stop expires... ..by linked order execution manager 61 during execution of a linked order and operates to **extend** the **expiration time** of a **stop** for a predetermined amount, specified in the freeze or according to a default value, such... ..timer freeze is active, specifically, whether any timer freezes have been received, remain uncanceled, and **extend** the **expiration time**. If so, **stop** order manager 67 resets the stop measurement timer and returns to step 3004.

When the... ..the legs to be executed. In short, linked order execution manager 61 is able to **extend** the **duration** of all **stops** for the legs, to ensure none of the stops expire before the other stops are...start a process that requires it to enter the "in-process" state such as an **auction** or match, the umpire posts this change of state to system status board 74. Other...accept for the trade and to disclose to the public. fn the case of an **auction**, this would be either the reserve (upset) price or the opening **bid** price.

Size The **number** of trading units being bid/offered.

Minimum Lot Minimum lot size of the order. If...trend = away) counter-offer (ask improve . 1)

XYZ < 105000 ask improve any & (trend = toward) request **auction**

XYZ any any crowd

The first rule in Table 6 is that if the offered an amount, and the market trend is towards a better price, then request an **auction**. The fourth rule in Table 6, applied when none of the prior rules have been... ..improved 5% over (take if within approved price)

previous offered)

XYZ < ask improve any & request **auction**

lopo (trend = toward)

XYZ I any any order room

Table 7 is similar to Table... ..rebate paid by this Umpire for each trade executed with him. Another example is whether **auction** mode during discovery is supported.

TI How long this umpire takes to complete discovery.

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During **auction** mode discovery, an inquiring order ELF can accept **auction** mode pricing, meaning that if any order ELFs in the crowd for the umpire provide... shares of the symbol being traded at oU 30, and states that oE 10 accepts **auction** mode. Several scenarios are possible.

oU 30 has no crowd order ELFs, or none of...take other actions such as joining the crowd or posting at an umpire, triggering an **auction**, and so on. At step 691, if the action is to post an order to... 10 uses the order umpire-specified method for acting, such as taking, posting, requesting an **auction**, requesting a stop, exercising a stop, counteroffering or joining the crowd. At step 708, oE...its local information, such as what is in order control table 130. If the inquiry **level** requires an umpire **response**, also referred to as level 2, then at step 585 0, oE IO sends...point;

Stored price information from orders in the order book file kept by oU 30;

Auction among the crowd of oEs registered at oU 30;

Subscribe to feeds from selected dEs... improved price (not shown in this embodiment).

The arrival of an order that signals an **auction** process to hold an **auction**.

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At step 5320, oU 30 checks whether it supports **auction** mode. If not, processing proceeds to step 5340. If oU 30 supports **auction** mode, and **auction** mode has been requested by the inquiring order ELF, then at step 5325, oU 30... as proportionally allocating the quantity or following a first-come-first-served strategy.

A discovery **auction** may occur at computer processing speeds, when all crowd ELFs are able to make decisions without guidance from their order rooms. However, when order room guidance is involved, the discovery **auction** occurs at much slower human response times.

At step 5340, oU 30 eliminates trial order...superbook method, oU 30 will advise its crowd of a price improvement opportunity. The crowd **auction** will take time, particularly if the **auction** is conducted at human **response** times, and the **quantity** at the best price is available to other order ELFs while an **auction** is occurring for the present active side order ELF.

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auction of the absence of responses. If there were response(s) from the crowd, at step 1730, oU 30 returns the responses to the order ELF that requested the **auction**.

The **bidding** ELF's are notified of the outcome and the **auction** request processing is now complete.

Fig. 83 is a flowchart showing stop request processing. At...process status in system status board 74.

Fig. 86 is a flowchart of sealed-bid **auction** processing by oU 30. Sealed-bid **auction** processing is a forced take situation. Generally, an active side oE will have requested an **auction** from oU 30. At step 1835, oU 30 selects an order from the book for **auction**, skipping each order with at least one umpire in its order tail that was in... ..if the bids are from ELF's incompatible with the one whose order is up for **auction** and ignores them if so.

After the best price has been discovered as described above... ..orders in its book. If so, processing returns to step 1835. If not, sealed-bid **auction** processing is complete.

Fig. 87 is a flowchart of match processing by oU 30. Match...the trial order to order room 72. See Fig. 39, step 898.

Use Case: Voluntary **auction** mode during discovery

Fig. 99 illustrates how an active-side order ELF, oE IO, a... ..with a crowd, oU 30, and a crowd order ELF, oE 12, co-operate during **auction** mode discovery. In this example, oE IO asks oU 30 for discovery with **auction** mode. oE 12 improves upon oU 30's book price, and oE IO must... ..30, operative according to the superbook method, accompanied by an indication that oE IO accepts **auction** mode. See Fig. 23, step 525, and Fig. 26, step 645.

At step 4620, oU ...4685, oE IO builds an action list, see Fig. 23, step 535.

Use Case: Automatic **auction** mode during execution (Superbook)

Fig. 100 illustrates how an active-side order ELF, oE IO...

Claims:

...market methodology selected from at least two of book, book with crowd price improvement notification, **auction**, match, and negotiation.

31 The method of claim 1, wherein a processing mode of the...

11/K/41 (Item 14 from file: 349)

Fulltext available through: [Order File History](#)

PCT FULLTEXT

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	Country	Number	Kind	Date
Patent				19

Detailed Description:

...of a trial order in system 5;

Fig. 99 is a chart showing processing during **auction** discovery in system 5; Fig. 100 is a chart showing superbook processing during execution in...such as royalty rights or settlement amounts for a dispute. Accordingly, the terms "buying," "selling," "**bidding**" and "offering" should be understood from context.

System 5 facilitates competition among trading methodologies, rather...0 Counter-offer by proposing a different price;

0 Request that the oU conduct an **auction** for its order;

0 Request a stop;

0 Choose to join the crowd for the...mE 50 sends an acknowledgement (ACK) to the receiver.

Processing is now complete. Generally, the **response** indicates a **number** of shares that was acted upon. In some cases, such as a cancel, the response...price is determined based on an order book and with a price improvement mechanism: an **auction** for the crowd of oEs registered with the umpire. The price improvement mechanism is operative... ..discovery and during execution. During discovery, an inquiring order ELF can indicate that it "accepts **auction** mode" meaning that if an order ELF in the crowd provides a better price than... ..superbook umpire notifies order ELFs in its crowd of the opportunity to improve -the price.

"**Auction**" meaning that the price is determined by an **auction** according to predetermined **auction** rules,

0 "Match" meaning a process with three aspects: 1) pairing, 2) price assignment, and...T1 Method T2 Methodology

0 book 0 standard book

infinity book 0 blind book

value **auction** Not applicable Dutch **auction**

value external value Not applicable match

value negotiation (inquiry type) 0 inquiry

value superbook representation...an oE;

Responding to a counter-offer from an oE; and

Conducting an on-demand **auction** to promote pairings between orders

in

the ELF crowd and booked orders.

To illustrate the...and did not offer a choice of negotiation methods as does system 5.

Service: Crowd **auction** during discovery

All umpires are assumed to have a book of orders. Any umpire that has a crowd may choose to support **auction** mode price discovery, either as a default or by request from an ELF. It will be appreciated that some order processing methods are suitable for **auction** price discovery, such as book and superbook methods, while other order processing methods are not suitable for **auction** price discovery, such as periodic match methods.

When an order umpire is providing discovery with **auction** mode, the order umpire responds to price inquiries after an interval of up to a... ..crowd response is an order that was provoked by the active-side order ELF's **auction** mode discovery request. The active-side order ELF is not obliged to take the book... ..take the price.

Fig. 99 provides an example of superbook processing during discovery.

Service: Crowd **auction** during execution

An umpire operating according to the superbook method will, when the order umpire... ..order. The superbook method is actually a combination of a book trading method and an **auction** trading method, with crowd **auctions** occurring to improve the price relative to the book's price. A superbook umpire may also support **auction** mode price discovery.

Fig. 100 provides an example of superbook processing during execution. See...being obtained from the book and the second contra-side portions being obtained through the **auction** form of crowd price improvement.

System 5 also provides much more sophisticated mechanisms for disclosing... ..an implementation of a pattern match system, whereas BidPlus is more akin to a dutch **auction** in which prices come down as **bidding** continues.

Optimark is directed to matching as many orders as possible, whereas BidPlus is directed...This is a particularly advantageous procedure for linked orders, as platform services may need to **extend** the **duration** of a **stop** to guarantee prices for a linked order, and can readily **extend** the **duration** of the **stop** when its own stop order manager is responsible for declaring when a stop expires. This... ..by linked order execution manager 61 during execution of a linked order and operates to **extend** the **expiration time** of a **stop** for a predetermined amount, specified in the freeze or according to a default value, such... ..timer freeze is active, specifically, whether any timer freezes have been received, remain uncanceled, and **extend** the **expiration time**. If so, **stop** order manager 67 resets the stop measurement timer and returns to step 3004.

When the... ..the legs to be executed. In short, linked order execution manager 61 is able to **extend** the **duration** of all **stops** for the legs, to ensure none of the stops expire before the other stops are...start a process that requires it to enter the "in-process" state such as an **auction** or match, the umpire posts this change of state to system status board 74. Other...accept for the trade and to disclose to the public. In the case of an **auction**, this would be either the reserve (upset) price or the opening **bid** price.

Size The **number** of trading units being bid/offered.

Minimum Lot Minimum lot size of the order. If...by an amount, and the market trend is towards a better price, then request an **auction**. The fourth rule in Table 6, applied when none of the prior rules have been... ..improved 5% over (take if within approved price) previous offered)

XYZ < ask improve any & request **auction**

lopo (trend = toward) I I

XYZ any any Iorder room

1 5 Table 7 is...rebatе paid by this Umpire for each trade executed with him. Another example is whether **auction** mode during discovery is supported.

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oU30hasnocrowdorderELFs,ornoneofitscrowdorderELFsprovides a better price. Here, oU 30 returns a price...take other actions such as joining the crowd or posting at an umpire, triggering an **auction**, and so on. At step 69 1, if the action is to post an order... ..IO uses the order umpire-specified method for acting, such as taking, posting, requesting an **auction**, requesting a stop, exercising a stop, counteroffering or joining the crowd. At step 708, oE 10...its local information, such as what is in order control table 130. If the inquiry **level** requires an umpire **response**, also referred to as level 2. then at step 5850, oE 10 sends an inquiry...point;

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At step 5340, oU 30 eliminates trial order...superbook method, oU 30 will advise its crowd of a price improvement opportunity. The crowd **auction** will take time, particularly if the **auction** is conducted at human **response** times, and the **quantity** at the best price is available to other order ELFs while an **auction** is occurring for the present active side order ELF.

After releasing the affirmed quantity at... 128 1, oU 30 invokes the execution logic shown in Fig. 70, for the affirmed **quantity**; crowd **responses** are assumed to be implicitly affirmed. At step 1282, oU 30 releases any unused affirmed...the orders at the best price of 17. Accordingly, oU 30 conducted a price improvement **action** among its crowd of registered ELF's, got a response, indicated as order GG, for 100... price had changed, from 17.2 to 17. Accordingly, oU 30 conducted a price improvement **action** among its crowd of registered ELF's, but got no responses. So, order EE was returned...services 60.

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Fig. 87 is a flowchart of match processing by oU 30. Match...the trial order to order room 72. See Fig. 39, step 898.

Use Case: Voluntary **action** mode during discovery

Fig. 99 illustrates how an active-side order ELF, oE IO, a... with a crowd, oU 30, and a crowd order ELF, oE 12, co-operate during **action** mode discovery. In this example, oE 10 asks oU 30 for discovery with **action** mode. oE 12 improves upon oU 30's book price, and oE 10 must take... 30, operative according to the superbook method, accompanied by an indication that oE 10 accepts **action** mode. See Fig. 23, step 525, and Fig. 26, step 645.

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Use Case: Automatic **action** mode during execution (Superbook)

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Patent				19

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0 book 0 standard book

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value **auction** Not applicable Dutch **auction**

value external value Not applicable match

value negotiation (inquiry type) 0 inquiry

value superbook 1...an oE;

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in

the ELF crowd and booked orders.

To illustrate the...and did not offer a choice of negotiation methods as does system 5.

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Size The **number** of trading units being bid/offered.

Minimum Lot Minimum lot size of the order. If...any & (trend = away) counter-offer (ask improve . 1)

XYZ <10,000 askimproveany&(trend=toward) request **auction**

XYZ any any crowd

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I Opo (trend = toward)

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Table 7 is similar to Table... ..rebate paid by this Umpire for each trade executed with him. Another example is whether **auction** mode during discovery is supported.

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Fig. 86 is a flowchart of sealed-bid **action** processing by oU 30. Sealed-bid **action** processing is a forced take situation. Generally, an active side oE will have requested an **action** from oU 30. At step 1835, oU 30 selects an order from the book for **action**, skipping each order with at least one umpire in its order tail that was in... ..if the bids are from ELF's incompatible with the one whose order is up for **action** and ignores them if so.

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Use Case: Voluntary **action** mode during discovery

Fig. 99 illustrates how an active-side order ELF, oE 10, a... ..with a crowd, oU 30, and a crowd order ELF, oE 12, co-operate during **action** mode discovery. In this example, oE 10 asks oU 30 for discovery with **action** mode. oE 12 improves upon oU 30's book price, and oE 10 must... ..30, operative according to the superbook method, accompanied by an indication that oE 10 accepts **action** mode. See Fig. 23, step 525, and Fig. 26, step 645.

At step 4620, oU... ..4685, oE 10 builds an action list, see Fig. 23, step 535.

Use Case: Automatic **action** mode during execution (Superbook)

Fig. 100 illustrates how an active-side order ELF, oE 10...

Claims:

...least one informal market.

8 The method of claim 1, wherein the automatically acting includes **bidding** or offering at the market process based on market discovery results.

9 The method of... ..process.

16 The method of claim 15, wherein the market process operates according to an **auction** methodology.

17 The method of claim 15, wherein the market process operates according to a...process.

63 The method of claim 62, wherein the market process operates according to an **auction** methodology.

64 The method of claim 62, wherein the market process operates according to a...

11/K/43 (Item 16 from file: 349)

Fulltext available through: [Order File History](#)

PCT FULLTEXT

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	Country	Number	Kind	Date
Patent				19

Detailed Description:

...training session having play content and being operative to train a user to utter recognizable **responses**, a speaker emitting audio contents received from the entertaining trainer, and a user response analyzer... ...with a preferred embodiment of the present invention the analyzer is operative to identify inappropriate **volume** of user -utterances.

Additionally in accordance with a preferred embodiment of the present invention the...or services or to offer goods and services for sale via an online (web based) **auction** system. The toy acts as an intermediary in the **auction** system - either as an auctioneer or as a facilitator and aid to the seller or... ...a user uses his toy to put products up for sale via a web based

auction;

A system whereby a -user uses his toy to bid on items which have been put up for **auction** either by other toy users or by other persons or companies;

A system whereby interactive... ...on and at what price to bid.

The toy entices the user to use the **auction** system by suggesting it as a game which the user can play with the toy.

The toy aids the user in the choice of product on which to **bid** as well as the choice of price to bid.

The toy aids the user in... ...can suggest that the prize of any other game will be the fan experience of **bidding** in the **auction** system.

The toy aids in **auctioning** either new or used goods.

.Users, either on their own, or, preferably, via their toys may offer goods **auction** with or without a reserve (minimum) price.

User tells his toy that he as a... ..wants a particular item.

Toy then helps user find an item which is up for **auction** which may be available within the user's price range.

User tells toy that he... ..more items on which to bid.

Community of toys can set up a real-time **auction** which may be open or closed (i.e.

limited participation). (For example maybe only 6yr olds can participate.) In a real time **auction** some of many of the toys can act as auctioneers.

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The toys of many... ..user profiles and to database of transactions.

Life experience of toy is enhanced by the **auction** experience giving the toy more unique personality.

In a preferred embodiment of the present invention...Interactive toys in particular are used to purchase goods and/or services via a reverse **auction** system. In such a system a purchaser sets the price he is willing to pay... ..what price to suggest.

3. A toy which entices the user to use the reverse **auction** system by suggesting it as a game which the user can play with the toy... ..other game will be a fun experience finding something inexpensively by means of a reverse **auction** as described above.

7. A toy which aids in selling either new or used goods...process of suggesting and finding appropriate items and to encourage user to participate in reverse **auction** activities.

20. Toy aids users who do not like to or cannot use the internet... ..and to database of transactions.

26. Life experience of toy is enhanced by the reverse **auction** experience thus giving the toy more unique personality.

Another preferred embodiment of the present invention... ..on which to bid.

13. Community of toys may set up a real-time sale/**auction** which may be open or closed (i.e. limited participation). (For example maybe only 6yr olds can participate.)

14. In a real time sale/**auction** some of many of the toys may act as auctioneers.

15. Toys of many members... ..using user profiles - whether they have a particular item which they would like to sell/**auction** off. This can be presented as a game. "We know you have item X, would you like to sell/**auction** it! I'll play the auctioneer!" (says the toy).

16. Toy uses its relationship with... ..of suggesting and finding appropriate items and to encourage user to participate in sale or **auction**.

,17. Toy aids users who do not like to or cannot use the Internet via... ..database of transactions.

23. A life experience of a toy is enhanced by the sale/**auction** experience giving the toy more unique personality.

In a preferred embodiment of the present invention...toy user(s); Fig. 122 is a simplified flowchart illustrating examples of volume purchase and

auction using the current invention;

Fig. 123 is a simplified flowchart of an "**auction** party". in which only a limited number of users participate; the toys inform the users of what is occurring in the on-line

auction and allows the users to adjust their bids;

Fig. 124 is an illustration of an **auction** game;

Fig. 125 is a block diagram illustrating the **auction** and volume purchase experience enhances the (virtual) "life experience" of the Interactive Toy and thus... ..126 is a flow illustration of an interactive toy initiating a purchase in a reverse

auction;

Fig. 127 is a flow illustration of a toy obtaining information via other toys; Fig... ..illustrating an example of the interactions involved

between user and the toy in the reverse **auction** system;

Fig. 134 is a block diagram illustrating the reverse **auction** system;

Fig. 135 is a simplified flowchart illustrating the toy (via its computer and/or...afford;

Fig. 139 is a simplified flowchart depicting the user's initiation of the reverse **auction** activity;

Fig. 140 illustrates the numerous ways in which an interactive toy may access information...new exciting opportunities, arising from commerce with toys (T-Commerce) including the system of "reverse **auction**" described in this document and further detailed below. Finally, the presence of a huge number...computers. Their response includes, but is not limited to sound (including voice), motion and light.

Responses may or may not be generated either by predetermined scripts, or by entertainment content, provided...or the seller a fee for negotiating the deal. This can be extended to online **auctions** or any other kind of online sales strategy. Fig. 8 shows how the system uses...

11/K/44 (Item 17 from file: 349)

PCT FULLTEXT

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Country	Number	Kind	Date
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Detailed Description:

...system may provide a purchaser accessible interface 130 which enables the purchaser to view high-**level bid** information, view total savings by supplier and make total cost adjustments by supplier to test...and vendors; (ii) if any auction

category needs to be started immediately and sends an **auction** has started message to all such purchasers and vendors; (iii) if any **auction** category needs to be ended in the next five minutes and sends an **auction** will end message to all such purchasers and vendors; (iv) if any **auction** category needs to be ended and sends an **auction** has ended message to all such purchasers and vendors; and (v) if any **auction** category needs to be extended and sends an **auction** has been extended message to all such purchasers and vendors.

This **auction** engine also periodically (for example once every 10 minutes) checks to see if there are any **auctions** that ended recently for which **auction** reports have not yet been generated. For all such **auctions**, it generates **auction** reports and transmits them to the appropriate purchasers and vendors.

FIGURE 37 further reveals the... ..employees of the purchaser to interact with the system 10 and view the on-line **bidding** process at the same time. While many types of remote computers are contemplated, in one... ..browser. It is contemplated that the system 10 will not limit the purchaser to one **auction**, but will enable the purchaser to conduct concurrent on-line **bidding** or **auctions** running on multiple browser sessions.

Further, the purchaser's remote computer 152 may include an... ..are contemplated, allowing multiple vendors to interact with the system 10 and participate in the **auction** at the same time. While many types of remote computers are contemplated, in one embodiment...a collection of objects that represent the business intelligence of the system 10 (e.g., **auction**, category, purchaser, vendor, parameter, bid, etc). The business object layer is specifically scalable as these... ..of products.

CAMS 150 may be used to collect data desirable for an on line **auction**. It may then enable the **auction** as of a specific time and optionally provide notification that the **auction** has begun. Vendors may bid on a product or group of products using some or all of the above referenced features.

Bidding may include multiple parameters associated with a product or category of products. The **auction** status may or 5 may not be viewable in real time by vendors and... ..CAMS 150 may be used to manually or automatically send messages to vendors during the **auction** to increase competitive **bidding** during the **auction**. A purchaser may ...change the formula used to weight certain parameters to calculate a total cost while an **auction** is ongoing to test various scenarios. Reports may be generated

during or at the conclusion of an **auction**. For purposes of this application, multiple parameters are considered to be associated with a product...

Claims:

- 1 An electronic **bidding** system, comprising:
means for enabling each of a plurality of vendors to submit bids on... ..the vendors bids and the total cost of the product to the purchaser.
- 2 The **bidding** system of Claim 1, wherein the bids include a plurality of parameters for the product... ..of the product to the purchaser using a pre-determined total cost formula.
- 3 The **bidding** system of Claim 2, wherein the total cost formula includes at least one pre-defined constant.
- 4 The **bidding** system of Claim 1, further comprising:
means for communicating a vendor bid having the best... ..without revealing the identification of the vendor with the best total cost to encourage competitive **bidding** by the other vendors.
- 5 The **bidding** system of Claim 1, further comprising:
means for enabling the purchaser to make at least... ..calculating means to determine the total cost of the product to the purchaser.
- 6 The **bidding** system of Claim 1, further comprising:
means for enabling communication with the vendors during the **bidding**.
- 7 The **bidding** system of Claim 6, wherein said communication means enables messages to be sent to the vendors to encourage further **bidding** by the vendors.
- 8 The **bidding** system of Claim 7, wherein said communication means enables messages to be sent to the vendors regarding the status of the **bidding**, ending time for the **bidding** and extensions of the **bidding**.
- 9 The **bidding** system of Claim 1, further comprising:
means for calculating the amount of savings for the purchaser and means for communicating the savings to the purchaser.
- 10 The **bidding** system of Claim 1, further comprising:
means for setting up the **bidding** on the product.
- 11 An electronic **auction** system, comprising:
a computer readable storage medium; software stored on the computer readable storage medium... ..vendors bids and the total cost of the product to the purchaser.
- 12 The electronic **auction** system of Claim 11, wherein the at least two parameters are selected from the group... ..installation, training, maintenance, the risks covered by warranty, and length of warranty.
- 13 The electronic **auction** system ...vendor bid having the best total cost for the product, to the vendors during the **auction** without revealing the identification of the vendor with the best total cost.
- 14 The electronic **auction** system of Claim 11, wherein the software is further operable to send data to the vendors during the **bidding** to stimulate competitive **bidding**.
- 15 The electronic **auction** system of Claim 11, wherein the software is further operable to enable the purchaser to... ..one adjustment corresponding to at least one vendor bid which is used by the central **auction** management system to calculate the total cost of the product to the purchaser.
- 16 The electronic **auction** system of Claim 11, wherein the total cost calculated for each vendor uses a single formula for all vendors.
- 17 The electronic **auction** system of Claim 11, wherein

the total cost calculated for each vendor uses a plurality... ..each vendor having one of the plurality of formulas associated with it.

18 The electronic **auction** system of Claim 11, wherein the plurality of parameters is further associated with a plurality of products.

19 The electronic **auction** system of Claim 11, wherein the **auction** results take into account vendors' bids on a market basket of products.

20 The electronic **auction** system of Claim 11, wherein bids from vendors are received through the Internet.

21 The electronic **auction** system of Claim 11, wherein the software is further operable to provide a vendor with data about the status of an **auction** while the **auction** is in progress.

22 The electronic **auction** system of Claim 11, wherein the software is further operable to provide a purchaser with data about the status of an **auction** while the **auction** is in progress.

23 The electronic **auction** system of Claim 11, wherein the software is further operable to control which vendors are allowed to participate in an **auction**.

24 The electronic **auction** system of Claim 11, wherein the software is further operable to allow a total cost formula to be defined for each product in an **auction**.

25 A method of conducting an on-line **auction**, comprising: receiving bids from a plurality of vendors, each bid comprising a plurality of parameters...further comprising: communicating the best vendor's bid to the other vendors to encourage competitive **bidding**.

11/K/45 (Item 18 from file: 349)

Fulltext available through: [Order File History](#)

PCT FULLTEXT

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	Country	Number	Kind	Date
Patent				19

Detailed Description:

NETWORK AND LIFE **CYCLE** ASSET MANAGEMENT IN AN E-COMMERCE ENVIRONMENT AND METHOD THEREOF
FIELD OF THE INVENTION

The ...are necessary or desirable, it is customary to assign each authorized user an identification (ID) **number** or a password, or both, which must be used to gain access to the host...market, large) and defines the service offerings that are best suited for the company to **offer**. These engagements will be followed by analysis, design and implementation projects.

Requirements Analysis - Companies may...notification is provided when they are not met (threshold exceeded, performance degradation). This also includes **thresholds** and specific requirements for billing.

This includes information on capacity, utilization, traffic and usage... ...Interface Management Process in accordance with a preferred embodiment. First, in step 1600, a service **level** agreement is received for a hybrid network customer. Next, in step 1602, the service level...end-to-end paths through the network, in which user packets associated with a great **number** of users share link and switch facilities as the packets travel over the network. The...

Claims:

...Service

& Miscellanea, usP Advertisement & r Lead Generation & TeUi Renderingicirfiftion Capabiliti n] CaPdbil ides**Auction** Capabilities5304 & Deployne-nItToolsCommon Web ServicesD2ta Son,,Icoc Integration Co pabilities 7rrrP...ElectronicMerchandising 9018Security9014 9012Figure 9091029106r- n c Buyer-Centric **Auctionn** Solution (Broker)SolutionCDe ornmerce Application & Iling els 09000 93eCommerce...

11/K/46 (Item 19 from file: 349)

Fulltext available through: [Order File History](#)

PCT FULLTEXT

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PROCUREMENT SYSTEM USING REVERSE AUCTION IN CONJUNCTION WITH OPEN MARKET

	Country	Number	Kind	Date
Patent				19

English Abstract:

A method and system for conducting an **auction** over a computer network (40) is provided. Potential suppliers of products or services use client... ...a target price and declares the supplier who submitted the lowest bid to be the **auction** winner.

Detailed Description:

...and to be republished in the event of receipt of amendments.

PROCUREMENT SYSTEM USING REVERSE AUCTION IN CONJUNCTION WITH OPEN MARKET

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims priority from U.S. Provisional application entitled "Procurement System Using Reverse **Auction** And Computer Network Technologies In Conjunction With Open Market And Anonymous Bidder Processes" filed on... ...generally to buying and selling in a computer network environment and particularly to a reverse **auction** process used in buying and selling over a computer network.

DESCRIPTION OF THE RELATED ART

Current methods of conducting an **auction** over a computer network, such as the Internet, have several deficiencies. In one type of **auction**, known as a forward **auction**, the price for a product or service is bid up by buyers over a

prescribed **auction** period at the close of which the highest bidder is the buyer of the product or service. The type of **auction** tends to favor the supplier (seller) and auctioneer because the process tends to make the... ..to win the bid over the other potential buyers.

In another method of conducting an **auction**, the price of a product is decreased in a prescribed manner over a prescribed **auction** period based on the amount of time left until the **auction** closes or the total quantity of the product has been purchased. In this kind of **auction** the **auction** period is relatively short and usually involves a decreasing quantity of the product available for **auctioning** during the **auctioning** period. Furthermore, in the decreasing price **auction**, the bidders are the buyers and the pricing is not a function of the **bidding** process but rather relates to the time left in the **auction** period. The purpose of the decreasing price is to sell the remaining product before the **auction** period ends.

the Internet, potential suppliers of products must be carefully qualified, before they are... ..products. Once qualified, however, the supplier may still place products having poor quality up for **auction**. When buyers receive these poor quality products, they then discover the poor quality and either... ..loss in confidence in the system. However, it is still desirable to have an open **auction** system in which any one at any time can be a supplier.

Thus, there is... ..in which the pricing of products or I O services occurs by means of an **auction** process that favors both the buyer and the seller and in which anyone at any... ..1 5 item, then giving notice to each of a plurality of suppliers that an **auction** is to be conducted to determine the supplier of the requested item. The suppliers have access via a computer network to a computer system that conducts the **auction**. Next, the **auction** is conducted over a period of time in which some or all of the plurality... ..bids at which each agrees to supply the requested item. At the end of the **auction**, a lowest bid is determined and whether the lowest bid is below a target price... ..is a bid below the target price, the lowest bidder is declared to be the **auction** winner and the winner is so informed. Lastly, the item is procured from the **auction** winner.

An advantage of the current invention is that the pricing process, by means of a reverse **auction**, favors both the seller and the buyer. The buyer's advantage is that the buyer receives a product or service at a lower cost because of the reverse **auction** process and the supplier's advantage is that the supplier is guaranteed the sale if... ..will be substantially eliminated.

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of each other. Requesting items to be supplied by an **auction** winner and **bidding** for the items is completely anonymous. This assures a completely un-biased procurement system and... ..appended claims, and accompanying drawings where.

FIG. 1 shows a computer network system over which **auctions** in accordance with the present invention are conducted;

FIG. 2 shows a typical configuration of... ..accordance with the present invention;

FIGs. 6A and 6C show a flow chart of the **auction** process in accordance with the present invention;

FIG. 7 shows a flow chart of the...OF THE INVENTION

FIG. 1 shows a computer network system 20 over which procurement by **auction** operates in accordance with the present invention. A computer network 40, such as the Internet... ..whether the product can be used or new. Other special product requirements are whether partial **quantities** can be **bid** on, the revision **level** of the product, the model number and the appearance of the product, priority, a supplier certification requirement, and length of the **auction** and its close time. This information is shown in record dr4 of FIG. 4B.

Another program module, an **auction** module 90, is dedicated to conducting one or more **auctions** over the computer network 40 shown in FIG. 1. This program receives, via the communications... ..bid notice is returned to suppliers that have been outbid by another supplier. Additionally, the **auction** program module posts documents that are accessible over the computer network to the suppliers and buyers and list item orders submitted by the buyers and the **auction** status relating to each item, i.e., the time and date of an upcoming **auction** and the results of a completed **auction** for the item. Suppliers view these order lists to determine what is available for **auction** and the **auction** status of the items in an active **auction**.

Also included in the procurement system 80 is a communications program 92 that is responsible for electronically communicating **auction** information directly to individual suppliers that are engaged in an open **auction**. This program communicates supplier bids, bid confirmations and a lower bid notices either through an...forms, to accept data entered into the supplier information forms, to supply

5
entered into **bidding** forms and to send electronic communications to the suppliers when those communications are in a... ..4A. These include a target price for a product or service to be auctioned, an **auction** close time and data, a drop ship requirement, a priority or urgency indicator, special and... ..if the product meets the requirements placed on the product by the buyer in the **auction** process. Product that fail to meet the buyers requirements are shipped back to the supplier... ..buyer's form of payment and desired mode of shipment. Data record dr2 includes interactive **auction** data that is sent to or I 0 received from suppliers connected to the system and engaged in an active **auction**. This interactive infonnation includes a supplier bid, a bid confirmation, and a lower bid notice... ..the quantity and maximum price the buyer is willing to pay for the item, the **auction** length and close time, the priority or urgency of the order, whether only certified suppliers are allowed to bid on the items in an order, whether suppliers can **bid** on partial **quantities**, the ship-to address, the preferred carrier, and additional shipping information. Notice to the buyer of **auction** results and buyer actions needed informs the buyer of the status of an item that has been subject to a completed **auction** and any actions the buyer may consider in response to the **auction** of the item. Such actions include the re-posting of the item for a new **auction**, canceling of an item that did not sell, the number supplied and not supplied if... ..assurer.

7
procurement system. Win notice indicates to the supplier that that supplier is the **auction** winning and purchase order gives the supplier access to a purchase order issued to the...product specifications and shipping information 1 0 about the products that have sold through the **auction** process along with failure information of products that fail the tests carried out by the... ..stored in a purchase requisition 1 5 list. These items are then placed on an **auction** list in step 142. The **auction** list is made available for browsing over the computer network by the **auction** program 30. Next, in step 144, the procurement system starts an **auction** to obtain the requested products or services on the **auction** list from suppliers willing to provide items on the list. Any supplier is free to submit bids to supply items on the **auction** list by means of program 92 and dr2, in FIG. 3. At the end of the **auction** in step 146, one or more suppliers have been selected in the **auction** process to provide a particular item on the **auction** list. In step 148, the buyer is notified of the **auction** results via the buyer Web page or portal by program 92 and dr2 in FIG... ..orders are created from the original purchase requisition or buyer-submitted purchase order and the **auction** results in step 148. If not all of the items requested in the purchase requisition... ..in step 152, the buyer can re-post some or all of the items for **auction** or cancel the requisition in step 154 via dr4 and program 86 in FIG. 3... ..system. Regardless of how the buyer submits his request, the procurement system creates and

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auction process to supply the item(s) requested by the buyer.

Next, in step 164, the... ..buyer does not receive products that do not meet the buyer's specifications in the **auction** or products that have sub-standard quality. This makes the 5 procurement process more efficient... ..than without the assurance ftinction.

FIGs. 6A and 6B show a flow chart for an **auction** process in accordance with the present invention from the viewpoint of a particular supplier. According... ..program 88 in FIG. 3. As a condition of the supplier's participating in an **auction**, the supplier must agree to accept the terms and conditions of submitting bids and the... ..shown in step 192.

Next, in step 194, the supplier views the items up for **auction** and the **auction**

data pertaining to the items over the computer network as provided by program 90 in FIG. 3. **Auction** data includes **auction** information and product information. **Auction** data includes the start time of the **auction**, the quantity needed, when the **auction** closes, and whether the target price has been reached. Product information includes the part number, the working condition and any specific product requirements.

For any item having an open **auction**, the supplier submits a bid to the procurement system over the computer network for a... ..the open
9
than the quantity needed.

While the supplier monitors the progress of the **auction** over the computer network in step 198, the **auction** module 90 in FIG.3 compares the supplier's bid with other bids received from other suppliers of the item being auctioned. If the **auction** period has not expired, as determined in step 200, and the supplier has not submitted...in step 206, to submit a new bid or drop I O out of the **auction**, in step 208. If the **auction** period has still not expired, and the supplier submits a new bid, as determined in step 206, the above process is repeated. Any **number** of **bids** can be submitted by the supplier before the **auction** period expires.

In one version of the present invention, if suppliers submit bids during a predetermined short period of time prior to the end of the **auction**, as determined in step 210, the **auction** period 15 is extended, in step 212, until there is no bid submitted during the short predetermined time period prior to the end of the **auction**, at which point the **auction** period is ended. In one case, the short time period is approximately IO minutes but... ..size time period can be chosen by the procurement system. The purpose of extending the **auction** period until a period of inactivity occurs is to insure that the **auction** does not prematurely terminate an active **bidding** process.

If the **auction** period is expired and no supplier submitted a bid meeting any special requirements associated with item under **auction**, the buyer can request via dr4 and program 86 (in FIG. 3) that a new **auction** be scheduled by the procurement system. Prior to a new **auction** some or all of the special requirements or the target price may be altered at the request of the buyer.

If the **auction** period has expired and the supplier has submitted the lowest bid as determined in step... ..fill the remaining quantity.

If that supplier has bid to supply less than the remaining **quantity** the supplier that **bid** the next
I O

there are multiple suppliers as determined in step 218, then each... ..selects a part number, either one existing or one just created. The buyer enters the **auction** parameters, in step 258 for the part just selected. **Auction** parameters include the condition of the item (new, used or working), whether partials are allowed... ..priority of the request, whether only certified suppliers are desired, the close time of the **auction**, the **auction** duration, the quantity of the

item, the buyer's maximum price, the last price the... ..buyer are specified.

Once all items are specified, the item list is posted to the **auction** program, in step 262.

Next, a ship-to address is filled in by the buyer... ..system in step 268 and, in step 270, the buyer monitors the status of the **auction** on a client computer system connected to the computer network.

FIG. 8 shows a flow...

Claims:

- 1 A method, using a computer system connected to a computer network, for conducting an **auction**, comprising the steps of(a) posting, on the computer system, an item requested by a buyer, by making available a document that displays information identifying the item, an **auction** period and a start time at which the **auction** is open to receive bids from potential suppliers over the computer network;
(i) upon the **auction** being opened for the item,(b) receiving and processing bids submitted for the item by... ..lowest current bid, in response to step (d); and(ii) at the end of the **auction** period,(f) determining whether the lowest bid is at or below a target price; and... ..below the target price, declaring the supplier who submitted the lowest bid to be the **auction** winner and notifying the **auction** winner thereof
- 2 A method, using a computer system connected to a computer network, for conducting an **auction** as recited in claim 1, further comprising the step of sending a request to the... ..3 A method, using a computer system connected to a computer network, for conducting an **auction** as recited in claim 1, wherein the computer network is the Internet.
- 4 A method... ..5 A method, using a computer system connected to a computer network, for conducting an **auction** as recited in claim 1, wherein the posting includes a picture and description of the... ..6 A method, using a computer system connected to a computer network, for conducting an **auction** as recited in claim 1, wherein the posting includes a specified quantity of the item requested by the buyer; wherein the **auction** winner bids to supply the specified quantity of the item requested; and wherein the **auction** winner has a guaranteed buyer for the specified quantity of the item requested.1 5
- 7 A method, using a computer system connected to a computer network, for conducting an **auction** as recited in claim 1, wherein the posting includes a specified quantity of the item requested by the buyer; and wherein the **auction** winner bids to supply less than the specified quantity; and wherein the supplier **bidding** the next lowest bid to the lowest bid supplies a some or all of the specified quantity of the item not supplied by the **auction** winner.
- 8 A method, using a computer, for procuring an item for a buyer, comprising... ..procure the item;
(b) giving notice to each of a plurality of suppliers that an **auction** is to be conducted to determine the supplier of the requested item, the suppliers having access via a computer network to a computer system that conducts the **auction**;1 4 suppliers submit bids at which each agrees to supply the requested item;(d) at the end of the **auction**, determining a lowest bid submitted and whether the lowest bid is below a target price... ..there is a bid below the target price, declaring the lowest bidder to be the **auction** winner and so informing the winner; and(f) procuring the item from the **auction** winner.
- 9 A method, using a computer, of procuring an item for a buyer as... ..a buyer as recited in claim 8, wherein the step of procuring item from the **auction** winner includes issuing a purchase order to the **auction** winner.
- 12 A method, using a computer, of procuring an item for a buyer as recited in claim 8, wherein the step of conducting the **auction** includes the steps of notifying the suppliers of a start time and **auction** period for a **bidding** process; subsequent to the start time, receiving bids from the plurality of suppliers over the... ..bid; and repeating the steps of receiving bids and communicating the lower bid until the **auction** period expires.

1 5 wherein the **auction** winner is certified to drop ship the item to the buyer; and wherein the step... computer, of procuring an item for a buyer as recited in claim 8, wherein the **auction** winner is not certified to drop ship the item to the buyer; 1 5 wherein...connected to the computer network and tracking the item order through the system; and an **auction** program connected to the application management system and configured to conduct an **auction** over the computer system to select, from among the plurality of suppliers, at 5 least... price lower than the other suppliers.

17 A method, using a computer, of procuring by **auction** an item for a buyer, comprising the steps of (a) receiving a request from a... network to a plurality of suppliers;(c) posting, in a document on the server, an **auction** period, and a start time of an **auction** for the item;(d) opening the **auction** for the product or service at the start time;(i) while the **auction** is open, (e) receiving bids from one or more of the plurality of suppliers over the computer network, each of the **bidding** suppliers being capable of supplying the requested item;(f) communicating to each of the **bidding** suppliers that another suppliersubmitted a lower bid;1 7(h) closing the **auction** when the **auction** period expires;0) determining after the close of the **auction** whether the lowest bid is at or below the target price;(ii) if the lowest... below the target price,(k) declaring the lowest bidder to be a winner of the **auction** and notifying the **auction** winner thereof;(1) procuring the requested item from the **auction** winner; and(iii) if the bid is not below the target price,I 0 (m... that there was no successful bid.

18 A method, using a computer, of procuring by **auction** an item for a buyer, as recited in claim

17 further comprising:

after step (g... whether any bids were received during a predetermined time prior to the end of the **auction** period;(q) if any bids were received during the predetermined time prior to the **end** of the **auction period**, extending the **auction period** for an additional period of time; and (r) if no bids were received during the predetermined time prior to the end of the **auction** period, continuing at step (h).

19 A method, using a computer, of procuring by **auction** an item for a buyer, as recited in claim

17 wherein the computer network is... the buyers and the suppliers.

1 8. A method, using a computer, of procuring by **auction** an item for a buyer, as recited in claim

17 wherein the step of procuring... the supplier submitting the lowest bid.

22 A method, using a computer, of procuring by **auction** an item for a buyer, as recited in claim

21 wherein the step of purchasing... a purchase order to the supplier.

23 A method, using a computer, of procuring by **auction** an item for a buyer, as recited in claim

17 finier comprising the step of... step (m), continuing at step (c).

24 A method, using a computer, of procuring by **auction** an item for a buyer, as recited in claim

17 wherein the step of communicating... the suppliers having a higher bid.

25 A method, using a computer, of procuring by **auction** an item for a buyer, as recited in claim

17@ wherein the step of notifying the **auction** winner of the winning bid is carried out by sending an email message over the computer network to the **auction** winner; and wherein the email message communicating the winning bid includes a hyper text link to an electronic purchase order document for issuance to the **auction** winner.

26 A method, using a computer, of procuring by **auction** an item for a buyer, as recited in claim

25 wherein the electronic purchase order...

11/K/47 (Item 20 from file: 349)

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PCT FULLTEXT

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	Country	Number	Kind	Date
Patent				19

English Abstract:

...includes the posting by a buyer (104) of specific criteria for a desired service, the **bidding** by a seller (106) to perform the service, and the selection of a seller by...

Detailed Description:

...posted by buyers, the exchange component enables buyers and service providers to transact using competitive **bidding** as a pricing mechanism. Buyers and service providers can also transact in the commodity or...This page 502 includes a project description area 504, an upload area 506, and a **bidding** area 508. These areas contain user prompts 510 and areas for the user...to customize the prompts 510 in the project description area 504, upload area 506, and **bidding** area 508. The wizards 514 vary by category 516 and subcategory 518. By activating a...704, the category 706 and subcategory 708, the initial estimate 710 for the project, the **number of bids** 714 made on the project, the amount of the average bid 714, the time left...Next, the seller browses 1008 the listed projects. The seller may then participate in an **auction** for a project by **bidding** 1010 on that project. The buyer chooses 1012 one or more winning sellers, and these...project, the buyer and seller may work and communicate 1016 in the workspace 300.

The **auction** may be a regular RFP **auction** or a Dutch **auction**. In a regular **auction**, the buyer specifies the **bidding** duration, and then sellers may bid on the project. Unless the

10

buyer **extends** the **bidding duration**, the **auction** automatically **closes** when this duration is reached. In a Dutch **auction**, the buyer chooses more than one seller to perform the service.

In a preferred embodiment...diagram of the commodity process. For commodity services, buyers do not need to run an **auction**. The seller offers services for purchase by specifying 1102 category, price, quantity, availability, turnaround time...Vendors will realize the importance of developing a positive reputation in order to win more **auctions** and also increase their pricing. The reputation they develop will also dissuade vendors from...

Claims:

...The computer implemented method of claim 1, wherein the bid is received in a closed **auction**.

7 The computer implemented method of claim 1, wherein the bid is received in an open **auction**.

8 The computer implemented method of claim 1, wherein the bid is received in a Dutch **auction**.

9 The computer implemented method of claim 1, wherein the collaborative workspace includes:one or...

11/K/48 (Item 21 from file: 349)

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PCT FULLTEXT

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	Country	Number	Kind	Date
Patent				19

English Abstract:

An item auctioned by posting the item as available for bids on an automated **auction** system, and sending information about the item to a user for display on the user... ..associated at the time of posting with an individual previously registered (916) with the automated **auction** system, the individual being approved to post items by a contact of an organization that the individual is connected with. The user has previously registered with the automated **auction** system and been approved to bid for items by a contact of an organization that...

Detailed Description:

SELLING HEAVILY NEGOTIATED ITEMS

BACKGROUND OF THE INVENTION

The present invention relates to an automated **auction** system and method for **auctioning** items which have been previously sold with substantial negotiation between parties.

Trading systems for items... ..convention and regulation.

Automated securities trading systems necessarily reflect these constraints.

Consumer-directed Internet-based **auction** systems have recently become popular.

Most of these systems function primarily as advertising and bid... ..and do not provide facilities for post-trade activities such as payment and delivery. Some **auction** systems have payment functions, but the payment is directed to a specific well-defined process... ..systems deliberately do not verify the identity or authority of parties to participate in the **auction** process.

Many valuable items, such as debt of corporations owed to either a bank or... ..institutions and financial funds in a manner that is unsuitable for the aforementioned trading and **auction** systems. Due to the nature of the item, buyers conduct due diligence reviews prior to... ..an item is auctioned by posting the item as available for bids on an

automated **auction** system, and sending information about the item to a user for display on the user's... terminal. From the terminal viewpoint, information about an item available for bids on an automated **auction** system is requested, and the information is displayed on the terminal.

In a further aspect... distressed commercial real estate.

In accordance with another aspect of this invention, a method of **auctioning** an item, comprises posting the item as available for bids on an automated **auction** system, and sending information about the item to a user for display on the user's... terminal. ...an item is auctioned by posting the item as available for bids on an automated **auction** system, and sending information about the item to a user for display on the user's... terminal. ...an item is auctioned by posting the item as available for bids on an automated **auction** system, and sending information about the item to a user for display on the user's... terminal. ...is associated at the time of posting with an individual previously registered with the automated **auction** system, the individual being approved to post items by a contact of an organization that... terminal. ...an item is auctioned by posting the item as available for bids on an automated **auction** system, and sending information about the item to a user for display on the user's... terminal. The user has previously registered with the automated **auction** system and been approved to bid for items by a contact of an organization that... terminal. ...is auctioned by posting the item as available for bids on an automated **auction** system, and sending information about the item to a user for display on the user's... terminal. ...an item is auctioned by posting the item as available for bids on an automated **auction** system, and sending information about the item to a user for display on the user's... terminal. ...terminal viewpoint, information is received about an item which has been auctioned on an automated **auction** market system to a winning bidder who has defaulted, and instruction is sent to the automated **auction** system to re-auction the item.

In accordance with another aspect of this invention, an item is auctioned by posting the item as available for bids on an automated **auction** system, and sending information about the item to a user for display on the user's terminal. The automated **auction** system automatically arranges for the posted item to be insured against a risk of default... terminal. ...an item is auctioned by posting the item as available for bids on an automated **auction** system, and sending information about the item to a user for display on the user's terminal. The user agreed to a master confidentiality agreement of the automated **auction** system while registering to use the automated **auction** system. From the terminal viewpoint, information about an item available for bids is requested and... terminal of a user who user agreed to a master confidentiality agreement of the automated **auction** system while registering to use the automated **auction** system.

In accordance with another aspect of this invention, a method of collecting market data about **auctions** comprises collecting data about the item when its **auction** closes as closed market data, and storing the closed market data. From the terminal viewpoint, a method of receiving market data about **auctions** is provided, in which data is received about an auctioned item when its **auction** closes as closed market data, and the closed market data is stored.

In a further... drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a block diagram of an automated **auction** system employing the present invention;

Fig. 2 is a chart showing the organization of pages available to users of the automated **auction** system shown in Fig. 1;

Figs. 3 and 4 are flowcharts showing a registration process... an individual, respectively;

Fig. 5 is a flowchart showing a process for posting items for **auction**;

Fig. 6 is a flowchart showing an **auction** process;

Fig. 7 is a flowchart showing post-**auction** processing;

Fig. 8 is a flowchart showing use of the bidder's default market;

Fig. 9 is a chart illustrating an **auction** posting page; and
Fig. 10 is a diagram illustrating a display at a user terminal.

DETAILED DESCRIPTION OF EMBODIMENTS

The present invention is directed to automated **auctioning** of heavily negotiated items. Users employ terminals to access a centralized **auction** computer system.

Referring now to the drawings, and in particular to Fig. 1, there is illustrated a block diagram of automated **auction** system 100 employing the present invention.

Central system 150 of automated **auction** system 100 is a general purpose computer programmed with software programs including server program 151, registration program 152, **auction** market program 154, market data program 156, and bidder's default market program 158.

Server... ..the art.

1.5 Registration program 152 is operative to register new users with automated **auction** system 100. In one embodiment, unregistered users may search and view open **auctions** and open market data, but, to post items for sale, bid on items or view... ..be registered. Registration is discussed in detail below with respect to Figs. 3 and 4.

Auction market program 154 is operative to provide the functions of an **auction** market and to act as an anonymous remailer of messages between bidders and sellers. A... ..program such as LiveExchange from Moai Technologies, San Francisco, California, is a suitable platform for **auction** market program 154, and is modified in accordance with the present system to include one... ..of the following features.

Real-time update capabilities

Group-based security model allows access to **auctions** and groups of **auctions** to be limited to specific users or groups of users. Access can be specified as none, view only, or full **bidding** privileges.

* Cross-platform Java-based architecture

Configuration tool for modification of system parameters

Console log... ..through SQL database queries or

custom Java extension module development

Unlimited number of hierarchies in **auction** catalogs. The flexible database structure allows easily maintainable catalogs to be created with no limits to number of items or levels

Featured **auctions**: lists of featured **auctions** can be designated for highlighting within

10 templates

Rotating **auction** ads, with a list of **auctions** designated for highlighting in ad window **Auction** search functionality based on **auction** attributes such as name., start time, specifications of posted debt

Registration/security: viewing and **bidding** in **auctions** can be restricted to registered 1.5 or validated users only. IP-based access rights... ..APIs allow network-based programmatic access to system data

The system optionally supports the following **auction** formats and features.

English (traditional open-outcry, ascending price format)

Dutch (open-outcry, descending price format)

Private **auctions** (only bids from specified users accepted)

Sealed bid **auctions**

Sealed bid **auctions** wherein the high bidder obtains the item at the price bid by the next-to-highest bidder

Reverse **auctions** (users list items they wish to purchase)

Single items or multiple simultaneous items supported per **auction**

Auto-**extend**: **closing time** can be variable and can **automatically extend** while **bidding** activity continues

Close by price: **auction** can automatically close upon reaching a certain price 0 Proxy **bidding** (system bids for participant until bidder's maximum price is reached)

E-mail notifications for... ..e-mail notifications. All e-mail notifications are customizable via templates.

0 Reserve prices in **auctions**

Minimum bid limit in **auctions**

Limits on participation to include only bidders with specified credit profiles

Credit limits for users... ..or percentage of last bid

Currency of bids (dollars, euros, yen and so on)

The **auction** process is discussed in detail below with respect to Figs. 5

Market data program 156 is operative to collect bids placed via **auction** market program 154 as open market data, to store open market data. and to return... ..of the present system, may depend on the market data. As described below, after an **auction** is completed, the auctioned item has a "closed" status until the item has cleared, that... ..made and title transferred.

Market data program 156 also collects information about completed and cleared **auctions** as closed and cleared **auction** market data, respectively, stores closed and cleared market data; and returns stored closed and cleared... ..system 150, and databases of registered users, posted items, bid data for open and completed **auctions**, and market data.

Central system 150 also includes communication ports 170 and 180 for receiving... ..operating system may be used. In some embodiments, when the user registers with the automated **auction** system, applet 124 is downloaded to user terminal 120. Other suitable terminal interfaces will be... ..2 is a chart showing an organization of pages available to users of the automated **auction** system shown in Fig. 1. In one embodiment, the pages of Fig. 2 are made... ..web pages.

Page 200 is a homepage, the starting point for access to the automated **auction** system. Page 200 includes portions that can be indicated by a user, such as by...authorized.

Page 210 is a page providing information about the operator of the automated **auction** market system.

Page 220 is a page providing information on how to contact the operator of the automated **auction** market system.

15 Page 230 is a page providing relevant news, such as stories... ..so on.

Page 250 is a page enabling a user to register with the automated **auction** market system. Page 250 is hyperlinked to pages 252, 254, 256, and 258, which enable... ..a legal interest in an item posted or about to be posted on the automated **auction** market system, and as a bidder's default market participant, respectively. Each of pages 252...

...by providing an appropriate password.

Page 260 is a page enabling access to the automated **auction** market. Page 260 is hyperlinked to pages 261, 263, 265 and 267.

Page 261 enables a user to input search terms relating to open and completed **auctions**. Browser 122 sends an HTTP request with form data consisting of the inputted

I 0

information to server program 151 of central system 150, which passes the request to **auction** market program 154, which, in turn, gathers information responsive to the request, formats the responsive... ..posted items and so I 0 on. In one embodiment, analyst reports are stored on **auction** market system 150. In another embodiment, links to analyst reports on other web site are... ..waiting for lapse of a waiting period and not yet commenced; "open," that is, an **auction** in-progress; "closed," that is, the **auction** has completed but settlement (transfer of payment and title) has not yet completed; or "historical... ..contacts can see information for all authorized individual users connected to their organization.

The automated **auction** market system also allows a user to download data pertaining to that user's activity... ..electronic bulletin board wherein users can post items they are interested in buying, to stimulate **auction** postings from users possessing such items and wishing to sell them. The electronic bulletin board... ..270 enables a user registered as a third party to request a page containing open **auction** postings for which consent to a sale associated with an **auction** posting has been granted, information relating to closed **auctions** for which consent has been granted, and

:n

historical **auctions**.

Page 280 enables a user registered as a bidder's default market participant to request a page containing information relating to closed **auctions** in which they are involved, that is, **auctions** which are in the bidder's default market since the winnina bidder defaulted, and completed **auctions**.

Figs. 3 and 4 are flowcharts showing a registration process for an organization and an individual, respectively.

To bid or sell on the automated **auction** market system, a user must reGister as an individual and be connected to a registered... ..has only one user. An organizational account may have multiple users. At registration, the automated **auction** 1 5 market system performs or facilitates a manual authentication check to confirm the identity of the organization or individual user and its qualification for use of the automated **auction** system. The organization is legally responsible for the actions of individuals connected thereto. Legally, the... ..the organization. Registered individuals and organizations may have confidentiality obligations for data obtained from the **auction** market system.

Turning now to Fig. 3, at step 3 1 0. the automated **auction** market system receives a completed organization registration form from an individual serving as ...trade, such as Standard & Poor's ratincy, or amount of assets under management. The automated **auction** system may have minimum trading capacity requirements, by type of item being traded, and may... ..Fig. 4 depicts the registration process for an individual.

At step 41 0, the automated **auction** system receives a completed individual registration forin from an individual. The form includes descriptive information... ..the user is connected, and identifies which activities the user wishes to perform, such as **bidding** and/or selling, by type of item. The form also includes items of interest to the individual. referred to as interest criteria, so that the automated **auction** system can notify the user of items of interest. In some embodiments, the maximum bid... ..total of all bids is part of the registration information; in these cases, the

automated **auction** system will not accept bids beyond such amounts from the user.

At step 420, registration... ..s registration information, requesting approval for the individual to perform the identified activities. The automated **auction** system requires each organization to guarantee the activity of registered individuals connected therewith, to minimize... ..a pertransaction basis, thereby reducing the time taken to sell an item on the automated **auction** system relative to conventional selling procedures.

At step 430, registration program 152 receives approval from... ..is complete.

Fig. 5 is a flowchart showing a process for posting an item for **auction**. **Auction** market program 154 of Ficy. I performs the processing depicted in Fig. 5 in response... ..request from an individual initiated via page 265 shown in Fig. 2.

At step 505, **auction** market program 154 receives the posting request. The posting request may indicate whether the seller... ..be appreciated, using the bidder's default market is a way of having the automated **auction** system automatically arrange for the item to be insured against a risk of default by a winning bidder. The posting request indicates, inter alia, the duration of the **auction**, in days, hours and minutes, or the ending time of the **auction** by date and time. Short **auctions** may be for, e.g., 0 days, 0 hours and 15 minutes. Long **auctions** may be for, e.g., 10 days, 12 hours and 5 minutes.

At step 510, **auction** market program 154 checks whether the individual is authorized to post the item or items identified in the posting request. Specifically, **auction** market program 154 is adapted to receive information describing one item to be posted for **auction**, or describing a portfolio of items to be posted for **auction**. If the posting is for a portfolio of items, then the individual must be authorized... ..to post the items identified in his or her posting request, then at step 520, **auction** market program 154 stores descriptive information for the item(s), and terms and conditions of the **auction**, such as its length and the **auction** method to be used.

At step 530, **auction** market program 154 stores downloadable documents supplied by the individual. For certain items, such as... ..thereby remain anonymous. The conventional document distribution process adds several days to the transaction time.

Auction market system 150 eliminates the document distribution time by allowing prospective bidders to download documents from **auction** market system 150. Individuals who download the documents pertaining to an **auction** have confidentiality obligations under the above-described master confidentiality agreement relating to the documents which survive the termination of the **auction**.

At step 540, **auction** market program 154 stores the terms and conditions pertaining to settlement for the item. The automated **auction** system enables an individual to select settlement terms from among a set of predefined settlement... ..as follows, with "T" indicating the trade date, that is, the date on which the **auction** ends, and the numeral indicating a number of days.

(SET 1) Settlement on T + 1... ..items. Conventionally, title documents and payment are exchanged on the same date, but the present **auction** system is not limited to this, and supports settlement arrangements wherein the title documents and... ..other characteristics, such as settlement currency (dollars, euros, yen and so on).

At step 550, **auction** market program 154 determines if consent to a sale associated with an **auction** posting for the item is required from a third party having a legal right to... ..as an agent bank, and whether the third party is registered NN ith the automated **auction** market system based on a list of registered third parties stored on storage 160 of Fig. 1. If no consent is required, **auction** market program 154 proceeds to step 560.

If consent is required, **auction** market program 154 proceeds to step 555.

In an embodiment, when the third party is... ..the third party is deciding that any bidder sufficiently qualified to be using the automated **auction** system is acceptable as a buyer. This is referred to as full automatic consent.

0... ..of specified bidders, and requiring an opportunity to consent to all other bidders after an **auction** is completed. Consenting in advance to the first set of specified bidders is referred to... ..advance to anyone, that is, requiring an opportunity to consent to any bidder after an **auction** is completed.

Partial automatic denial of consent may operate so that, when a member of... ..to as a denied bidder, tries to place a bid for an item, the automated

auction system refuses to accept the bid, and instead provides a message stating that consent to... ..operate so that a denied bidder is not able to view detailed information about open **auctions** for which consent has been denied in advance to that bidder.

In another embodiment, the third party may not be a participant in the system. In this case, the **auction** posting is treated as if the third party requires an opportunity to consent to any bidder after the **auction** is completed.

Accordingly, at step 555, **auction** market program 154 determines whether there is full or partial automatic consent for any sale associated with the proposed posting from information stored on storage 160.

At step 560, **auction** market program 154 displays the proposed posting to the individual. Fig. 9 is an example of **auction** posting page 900. Areas outlined with a solid line can be clicked on by the...hyperlinks or application programs. Areas outlined with a dashed line represent descriptive information supplied by **auction** market system 150.

Home button 910 of Fig. 9 is a hyperlink to homepage... ..Descriptive area 930 of Fig. 9 provides information regarding the posted item, such as the **auction** title, the quantity being sold, the type of the item, the specific description of the... ..selected by the seller.

Descriptive area 940 provides information relating to the duration of the **auction**, such as its start date and time, end date and time, and amount of time... ..Additionally, the registered name of the current high bidder may be displayed, along with the **number** of **bids** made so far, and the number of times the downloadable documents, if any, have been... ..downloadable documents available through button 972.

Download documents button 972 downloads the documents stored on **auction** market system 150 to the user.

Document advisor button 974 is a hyperlink to a... ..972. In some embodiments, advisor button 974 is a hyperlink to a web page of **auction** market system 150 providing the e-mail address and/or telephone number of the document advisor. **Auction** market system 150 may automatically set up an e-mail template to the document advisor, filling in the email address of the user, the **auction** title as the subject of the e-mail message, and a checklist of the documents... ..button 952 is a hyperlink to a page containing the bids submitted in the open **auction**. In some embodiments, bid history button 952 allows a user to activate a small window... ..a hyperlink to a page enabling the user to submit a bid in the open **auction**.

Other specific arrangements of **auction** posting page 900 will be apparent to those of ordinary skill. In some embodiments, data... ..as the data changes, for example, the high bid or the time remaining in the **auction**.

At step 570, **auction** market program 154 determines whether the individual has approved the proposed posting, such as by... ..individual can make changes as appropriate. If the individual has approved, then at step 580, **auction** market program 154 configures central system 150 with the new posting as available for **auction**. At this point, the new posting can be viewed by unregistered users, and bid on... ..the posting approved by the user may experience a holding period before becoming a live **auction**.

In another embodiment, reverse **auction** postings are accepted by **auction** market program 154, wherein a user commits to selling one or more items meeting a... ..is provided wherein registered individuals can post items they are interested in buying, to stimulate **auction** postings from registered individuals possessing such items and wishing to sell them.

Fig. 6 is a flowchart showing an **auction** process.

At step 605, a new item posting becomes available through the process shown in Fig. 5. At step 610, **auction** market program 154 checks the interest criteria of registered users, and, if the new item search-by-parameter request made through search page 261. At step 620, **auction** market program 154 replies to the user with the requested information. namely, details of the... ..mail (e-mail) to the seller of the posted item. If so, at step 627, **auction** market program 154 checks that the user is registered, and if so, returns an e-mail template to the user. At step 630, **auction** market program 154 receives the completed e-mail template, referred to hereafter as a message. At step 635, **auction** market program 154 strips the user's identifying information from the message to I/O create an anonymous inquiry. At step 640, **auction** market program 154 forwards the anonymous inquiry to the seller.

Presuming that the seller replies, a similar anonymous forwarding occurs with the seller's reply. At step 645, **auction** market program 154 receives the reply from the seller to the user, also referred to as a bidder. At step 650, **auction** market program 154 strips the I/O seller's identifying information from the reply to create an anonymous message. At step 655, **auction** market program 154 forwards the anonymous message to the bidder.

Anonymous electronic mail forwarding facilitates... ..buyers are more likely to inquire when their identity is not known. Because the automated **auction** system forwards electronic mail only from registered users, sellers know that a qualified party is... ..Bids are typically in a percentage of par value rather than in absolute currency units. **Auction** market program 154 checks that the user is authorized to place the bid, and if... ..disk 160 and reports the bid to market data program 156.

At step 665, **auction** market program 154 checks whether the new bid results in a prior bidder being outbid... ..the bidder specified that he or she wished to receive such notification.

At step 670, **auction** market program 154 checks whether the end of **auction** condition has been met, typically, a predetermined time interval has elapsed, or no bids have... ..not, then processing returns to step 610, so that bidders interested only in popular **auctions**, that is, **auctions** having at least a I/O certain **number** of **bids**, can be notified if appropriate.

If, at step 670, an end of **auction** condition is detected by **auction** market program 154, then at step 675, **auction** market program 675 updates the item posting to indicate that the **auction** is completed and the item is unavailable for **auction**. The final price and the system name of the registered individual may be retrieved by a search of closed **auctions**.

1 5 Completion of an **auction** forms a binding agreement between the seller and winning bidder, if any. In one embodiment, when an **auction** is completed, a user may no longer send anonymous electronic mail to the seller. In another embodiment, even when an **auction** is completed, a user may send anonymous electronic mail to the seller.

Fig. 7 is a flowchart showing post-**auction** processing.

At step 710, completion of an **auction** occurs, as depicted in Fig. 6. If there is a winning bidder, that is, the **auction** reserve and/or minimum price, if any, have been met, then **auction** market program 154 reports a closed sale to market data program 156. If there is a winning bidder and consent to the sale is not required from a third party, **auction** market program 154 proceeds to step 735.

At step 715, **auction** market program 154 determines whether any full or partial advance consent was provided for this **auction**. If full consent to any sale associated with the posting was provided in advance, then **auction** market program 154 proceeds to step 730. If partial consent was provided, and the winning bidder is one of the set of automatically consented-to bidders, then **auction** market program 154 proceeds to step 730.

If the winning bidder is one of the set of bidders for which consent is automatically denied, then **auction** market program 154 informs the seller. If the seller convinces the third party to consent... ..and processing proceeds to step 740.

Otherwise, the seller may re-post the item for **auction**, and is responsible for notifying the winning bidder that the seller is unable to complete... ..If consent is required and automatic consent to the sale has not been obtained, then **auction** market program 154 proceeds to step 720. At step 720, **auction** market program 154 automatically requests consent to the sale from the third party

At steps 730, 735 and 740, **auction** market program 154 notifies the third party, seller and winning bidder, respectively, of the completion of the **auction**. The winning bidder is also referred to as the buyer. The notifications may include fees for the **auction**, such as posting fees and completion fees. In one embodiment, **auction** market program 154 also notifies the seller that the winning bidder has been contacted, alleviating... ..buyer. The notices include appropriate identifying information for the buyer and seller.

At step 745, **auction** market program 154 receives notice from the seller that the 1 5 **auction** has cleared, that is, the seller has transferred title to the buyer and received payment from the buyer. Accordingly, **auction** market program 154 reports a cleared sale to market data program 156. If **auction** market program 154 has not received notice of clearance from the seller by the time specified in the clearance terms selected when the item was posted, then **auction** market program 154 sends a query message to the seller, requesting notice that clearance completed... ..to the bidder's default market upon payment of a fee. In another embodiment, all **auction** postings are transferred to the bidder's default market if the winning bidder defaults.

An... ..embodiments, when an individual defaults, that individual is prohibited from further use of the automated **auction** market. In other embodiments, after an individual defaults, subsequent bids by that individual are marked... ..Asian defaults. In yet another embodiment, the selected bidder's default market insurer may re-**auction** the item rather than directly replacing the defaulting bidder. In all embodiments, at the conclusion... ..market insurer has a choice of substituting for the defaulting bidder or forcing a re-

auction of the item. If the insurer chooses to force a re-**auction**, then the insurer benefits from or is liable for any price difference between the first (original) **auction** and second (re-**auction**) **auction**.

At step 850, bidder's default market program 158 notifies the seller of the identity... ..is also available, either optionally or provided to all bidders. In these embodiments, the automated **auction** system automatically arranges for the winning bid to be insured against certain predefined risks. Risks...the amount of the winning bid.

Items that may be advantageously posted on the automated **auction** system will now be discussed.

"Bank debt" refers to loans made by commercial and investment... ..with readily available market data improves the so-called transparency of the market. The automated **auction** system of the present invention dramatically reduces the cost of operating and staffing a loan... ..registering users and availability of a 1 5 bidder's default market imbues the automated **auction** market with trust from sellers, who are thereby encouraged to use the automated **auction** market. Anonymity enables all sellers to post items for sale with the same "status" as large institutions.

The automated **auction** system may be employed in the primary market for bank debt. Conventionally, issuing bank debt delay. With the automated **auction** system, each of these documents is electronically created by selecting from a menu of clauses... ..the borrower, depending on which of these parties is posting the debt on the automated **auction** market system.

"Trade debt" refers to an obligation created when a company extends credit to... ..if distressed, is marketable.

In the secondary market for trade debt, availability of the automated **auction** system makes debt holders aware of the ease of selling their asset.

The automated **auction** system may be employed in the primary market for trade debt, known as factoring or... ..an appropriate type of item for use with the present system.

Embodiments of the automated **auction** system may offer at least one of the following advantages.

Eliminating negotiations and significantly reducing... ..participants that individuals will actually perform in accordance with their bids, since users of the **auction** system are qualified at registration and their identity is verified.

Faster trading, since negotiation over...

Claims:

1. A method of **auctioning** an item, comprising:

posting the item as available for bids on an automated **auction** system. the item being associated at the time of posting with settlement terms selected from... ..is associated at the time of posting with an individual previously registered with the automated **auction** system., the individual being approved to post items by a contact of an organization that the individual is connected with, the user has previously registered with the automated **auction** system and been approved to bid for items by a contact of an organization that the individual is connected with the automated **auction** system automatically arranges for the posted item to be insured against a risk of default... ..a winning bidder, and the user agreed to a master confidentiality agreement of the automated **auction** system while registering to use the automated **auction** system.

2 A method of **auctioning** an item, comprising:

posting the item as available for bids on an automated **auction** system. the item being associated at the time of posting with settlement terms selected from... ..is associated at the time of posting with an individual previously

registered with the automated **auction** system, the individual being approved to post items by a contact of an organization that... 7 The method of claim 1, wherein the user has previously registered with the automated **auction** system and been approved to bid for items by a contact of an organization that... bid, and transferring the item to a bidder's default market.

14 An apparatus for **auctioning** an item, comprising:

means for posting the item as available for bids on an automated **auction** system, the item being associated at the time of posting with settlement terms selected from... is associated at the time of posting with an individual previously registered with the automated **auction** system, the individual being approved to post items by a contact of an organization that... 19 The apparatus of claim 14, wherein the user has previously registered with the automated **auction** system and been approved to bid for items by a contact of an organization that... means for transferring the item to a bidder's default market.

26 A method of **auctioning** an item, comprising:

requesting information about an item available for bids on an automated **auction** system, the item being associated at the time of posting with settlement terms selected from... is associated at the time of posting with an individual previously registered with the automated **auction** system, the individual being approved to post items by a contact of an organization that... 31 The method of claim 26, wherein the user is previously registered with the automated **auction** system and is approved to bid for items by a contact of an organization that... third party having a legal right to consent to the sale.

37 An apparatus for **auctioning** an item, comprising:

means for requesting information about an item available for bids on an automated **auction** system, the item being associated at the time of posting with settlement terms selected from... is associated at the time of posting with an individual previously registered with the automated **auction** system, the individual being approved to post items by a contact of an organization that... 41 The apparatus of claim 37, wherein the user is previously registered with the automated **auction** system and is approved to bid for items by a contact of an organization that... third party having a legal right to consent to the sale.

48 A method of **auctioning** an item, comprising:

posting the item as available for bids on an automated **auction** system. sending information about the item to a user for display on the user's... user about how many times the document has previously been downloaded.

50 An apparatus for **auctioning** an item, comprising:

means for posting the item as available for bids on an automated **auction** system, means for sending information about the item to a user for display on the... user about how many times the document has previously been downloaded.

52 A method of **auctioning** an item, comprising:

requesting information about an item available for bids on an automated **auction** system, displaying the information about the item on a user's terminal, requesting a document download... information about how many times the document has previously been downloaded.

54 An apparatus for **auctioning** an item, comprising:

means for requesting information about an item available for bids on an automated **auction** system, means for displaying the information about the item on a user's terminal, means for... information about how many times the document has previously been downloaded.

56 A method of **auctioning** an item, comprising:

posting the item as available for bids on an automated **auction** system, sending information about the item to a user for display on the user's... an anonymous inquiry, and forwarding the anonymous inquiry to the seller.

58 An apparatus for **auctioning** an item. comprising:

means for posting the item as available for bids on an automated **auction** system, means for sending information about the item to a user for display on... inquiry, and means for forwarding the anonymous inquiry to the seller.

60 A method of **auctioning** an item. comprising:

requesting information about an item available for bids on an automated **auction** system, displaying the information about the item on a user's terminal, and receiving a message... to be forwarded to the seller without information

identifying the user.

62 An apparatus for **auctioning** an item, comprising:

means for requesting information about an item available for bids on an automated **auction** system, means for displaying the information about the item on a user's terminal, and means... ..to be forwarded to the seller without information identifying the user.

64 A method of **auctioning** an item, comprising:

posting the item as available for bids on an automated **auction** system, the item being associated at the time of posting with an individual previously registered with the automated **auction** system, the individual being approved to post items by a contact of an organization that... ..item to a user for display on the user's terminal.

65 An apparatus for **auctioning** an item, comprising:

means for posting the item as available for bids on an automated **auction** system, the item being associated at the time of posting with an individual previously registered with the automated **auction** system, the individual being approved to post items by a contact of an organization that... ..item to a user for display on the user's terminal.

66 A method of **auctioning** an item, comprising:

requesting information about an item available for bids on an automated **auction** system, the item being associated at the time of posting with an individual previously registered with the automated **auction** system, the individual being approved to post items by a contact of an organization that... ..displaying the information about the item on a user's terminal.

67 An apparatus for **auctioning** an item, comprising:

means for requesting information about an item available for bids on an automated **auction** system, the item being associated at the time of posting with an individual previously registered with the automated **auction** system, the individual being approved to post items by a contact of an organization that... ..displaying the information about the item on a user's terminal.

68 A method of **auctioning** an item, comprising:

posting the item as available for bids on an automated

auction system, and sending information about the item to a user for display on the user's terminal, the user being previously registered with the automated **auction** system and being approved to bid for items by a contact of an organization that the individual is connected with.

69 An apparatus for **auctioning** an item, comprising:

means for posting the item as available for bids on an automated **auction** system, and means for sending information about the item to a user for display on the user's terminal, the user being previously registered with the automated **auction** system and being approved to bid for items by a contact of an organization that the individual is connected with.

70 A method of **auctioning** an item, comprising:

requesting information about an item available for bids on an automated **auction** system, and displaying the information about the item on a user's terminal, the user being previously registered with the automated **auction** system and being approved to bid for items by a contact of an organization that the individual is connected with.

71 An apparatus for **auctioning** an item, comprising:

means for requesting information about an item available for bids on an automated **auction** system, and means for displaying the information about the item on a user's terminal, the user being previously registered with the automated **auction** system and being approved to bid for items by a contact of an organization that the individual is connected with.

72 A method of **auctioning** bank debt, comprising:

posting the bank debt as available for bids on an automated **auction** system, and sending information about the bank debt to a user for display on the user's terminal.

73 A method of **auctioning** trade debt, comprising:

posting the trade debt as available for bids on an automated **auction** system, and sending information about the trade debt to a user for display on the user's terminal.

74 A method of **auctioning** an emerging market debt instrument, comprising: posting the emerging market debt instrument as available for bids on an automated **auction** system, and sending information about the emerging market debt instrument to a user for display on the user's terminal.

75 A method of **auctioning** distressed commercial real estate, comprising: posting the distressed commercial real estate as available for bids on an automated **auction** system, and sending information about the distressed commercial real estate to a user for display on the user's terminal.

76 An apparatus for **auctioning** bank debt, comprising: means for posting the bank debt as available for bids on an automated **auction** system, and means for sending information about the bank debt to a user for display on the user's terminal.

77 An apparatus for **auctioning** trade debt, comprising: means for posting the trade debt as available for bids on an automated **auction** system, and means for sending information about the trade debt to a user for display on the user's terminal.

78 An apparatus for **auctioning** an emerging market debt instrument, comprising: means for posting the emerging market debt instrument as available for bids on an automated **auction** system, and means for sending information about the emerging market debt instrument to a user for display on the user's terminal.

79 An apparatus for **auctioning** distressed commercial real estate, comprising: means for posting the distressed commercial real estate as available for bids on an automated **auction** system, and means for sending information about the distressed commercial real estate to a user for display on the user's terminal.

80 A method of **auctioning** bank debt, comprising: requesting information about bank debt available for bids on an automated **auction** system, and displaying the information about the bank debt on a user's terminal.

81 A method of **auctioning** trade debt, comprising: requesting information about trade debt available for bids on an automated **auction** system, and displaying information about the trade debt on a user's terminal.

82 A method of **auctioning** an emerging market debt instrument, comprising: requesting information about emerging market debt instrument available for bids on an automated **auction** system, and displaying the information about the emerging market debt instrument on a user's terminal.

83 A method of **auctioning** distressed commercial real estate, comprising: requesting information about distressed commercial real estate available for bids on an automated **auction** system, and displaying the information about the distressed commercial real estate on a user's terminal.

84 An apparatus for **auctioning** bank debt, comprising: means for requesting information about bank debt available for bids on an automated **auction** system, and means for displaying the information about the bank debt on a user's terminal.

85 An apparatus for **auctioning** trade debt, comprising: means for requesting information about trade debt available for bids on an automated **auction** system, and means for displaying information about the trade debt on a user's terminal.

86 An apparatus for **auctioning** an emerging market debt instrument, comprising: means for requesting information about the emerging market debt instrument available for bids on an automated **auction** system, and means for displaying the information about the emerging market debt instrument on a user's terminal.

87 An apparatus for **auctioning** distressed commercial real estate, comprising: means for requesting information about distressed commercial real estate available for bids on an automated **auction** system, and means for displaying the information about the distressed commercial

real estate on a user's terminal.

88 A method of **auctioning** an item, comprising:

posting the item as available for bids on an automated **auction** system, consent to a sale associated with the posting having been obtained from a third... ..The method of claim 88, wherein the item is bank debt.

90 An apparatus for **auctioning** an item, comprising:

means for posting the item as available for bids on an automated **auction** system, consent to a sale associated with the posting having been obtained from a third... ..The apparatus of claim 90, wherein the item is bank debt.

92 A method of **auctioning** an item'. comprising:

requesting information about an item available for bids on an automated **auction** system, consent to a sale associated with the item having been obtained from a third... ..The method of claim 92, wherein the item is bank debt..

94 An apparatus for **auctioning** an item, comprising:

means for requesting information about an item available for bids on an automated **auction** system, consent to a sale associated with the item having been obtained from a third... ..The apparatus of claim 94, wherein the item is bank debt..

96 A method of **auctioning** an item, comprising:

posting the item as available for bids on an automated **auction** system, sending information about the item to a user for display on the user's... ..of claim 96, wherein a participant in the bidder's default market forces a re-**auction** and benefits from or is liable for any price difference between the **auction** and the re-**auction**.

99 An apparatus for **auctioning** an item, comprising:

means for posting the item as available for bids on an automated **auction** system, means for sending information about the item to a user for display on the... ..of claim 99, wherein a participant in the bidder's default market forces a re-**auction** and benefits from or is liable for any price difference between the **auction** and the re-**auction**.102. A

method of **auctioning** an item, comprising: receiving information about an item which has been auctioned on an automated **auction** system to a winning bidder who has defaulted, and sending an instruction to the automated **auction** system to re-**auction** the item.103. An apparatus for **auctioning** an item, comprising: means for receiving

information about an item which has been auctioned on an automated **auction** system to a winning bidder who has defaulted, and means for sending an instruction to the automated **auction** system to re-**auction** the item.104. A

method of **auctioning** an item, comprising: posting the item as available for bids on an automated **auction** system., and sending information about the item to a user for display on the user's terminal, wherein the automated **auction** system automatically arranges for the posted item to be insured against a risk of default... ..comprising receiving a winning bid for the item from the user, and wherein the automated **auction** system automatically arranges for the winning bid to be insured against a predefined risk.106. An apparatus for **auctioning** an item, comprising: means for

posting the item as available for bids on an automated **auction** system, and means for sending information about the item to a user for display on the user's terminal, wherein the automated **auction** system automatically arranges for the posted item to be insured against a risk of default... ..for receiving a winning bid for the item from the user. and

wherein the automated **auction** system automatically arranges for the winning bid to be insured against a predefined risk.108. A method of **auctioning** an item, comprising: requesting information about an item as available for bids on

an automated **auction** system, and displaying information about the item on a user's terminal, wherein the item has been automatically insured against a risk of default by a winning bidder by the automated **auction** system. 109. The method of claim 108, further comprising placing a winning bid for the... ..wherein the winning bid has been automatically insured against a predefined risk by the automated **auction** system.110. An apparatus for **auctioning**

an item, comprising: means for requesting information about an item available for bids on an automated **auction** system, and a user's terminal for displaying information about the item, wherein the item... ..been automatically insured against a risk of default by a winning bidder by the automated **auction** system. 111. The method of claim 110, wherein the user's terminal is... ..the item, the winning bid being automatically insured against a predefined risk by the automated

auction system.112. A method of **auctioning** an item, comprising:posting the item as available for bids on an automated **auction** system, and sending information about the item to a user for display on the user's terminal, wherein the user agreed to a master confidentiality agreement of the automated **auction** system while registering to use the automated **auction** system. I U. The method of claim II 2, wherein the automated **auction** system has a plurality of users and each of the plurality of users agreed to the same master confidentiality agreement while respectively registering to use the automated **auction** system.114. An apparatus for **auctioning** an item, comprising:means for posting the item as available for bids on an automated **auction** system, and means for sending information about the item to a user for display on... ..user'sterminal,wherein the user agreed to a master confidentiality agreement of the automated **auction** system while registering to use the automated **auction** system. 115. The apparatus of claim II 4, wherein the automated **auction** system has a plurality of users and each of the plurality of users agreed to the same master confidentiality agreement while respectively registering to use the automated **auction** system.116. A method of **auctioning** an item, comprising:requesting information about an item available for bids on an automated **auction**system, and displaying information about the item on a user's terminal,wherein the user agreed to a master confidentiality agreement of the automated **auction** system while registering to use the automated **auction** system. 117. The method of claim II 6, wherein the automated **auction** system has a plurality of users and each of the plurality of users agreed to the same master confidentiality agreement while respectively registering to use the automated **auction** system.118. An apparatus for **auctioning** an item, comprising:means for requesting information about an item available for bids on an automated**auction** system, and a user's terminal for displaying information about the item,wherein the user agreed to a master confidentiality agreement of the automated **auction** system while registering to use the automated **auction** system. 119. The apparatus of claim I 1 8, wherein the automated **auction** system has a plurality of users and each of the plurality of users agreed to the same master confidentiality agreement while respectively registering to use the automated **auction** system.120. A method of collecting market data about **auctions**, comprising:collecting data about an auctioned item when its **auction** closes as closed marketdata; andstoring the closed market data.121. The method of... ..the item is distressed commercial real estate.126. An apparatus for collecting market data about **auctions**, comprising:means for collecting data about an auctioned item when its **auction** closes as closedmarket data; andmeans for storing the closed market data.127. The...the item is distressed commercial real estate.132. A method of receiving market data about **auctions**, comprising:receiving data about an auctioned item when its **auction** closes as closed marketdata; andstoring the closed market data.133. The method of... ..the item is distressed commercial real estate.138. An apparatus for receiving market data about **auctions**, comprising:means for receiving data about an auctioned item when its **auction** closes as closedmarket data; andmeans for storing the closed market data.139. The...

11/K/49 (Item 22 from file: 349)

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Country	Number	Kind	Date
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Detailed Description:

...is willing to pay 402. The system of the invention then assigns a unique tracking **number** to the **Bid** 404 and stores it in the Bid Database 405. With multiple Bids from multiple Investors... ..a fair allocation of the securities to the

bidders in the event that the total **volume** of **bids** exceeds the **volume** of securities in the Offering. Herein, the **64 volume of bids**" denotes the **number** of shares that investors would receive at the offering price, calculating the number of shares...the shoe.

In broad summary, the auction can have three outcomes. First, if the total **volume** of **bids** lies between or is equal to the minimum or the maximum number of shares offered, all orders are filled at the offering price. Second, if the total **volume** of **bids** exceeds the maximum, the invention finds a market price and an allocation of securities according to the rules described below. Third, if there is inadequate Investor interest and the total **volume** of **bids** is less than the minimum in the Offering, the offer is withdrawn, the auction is... ..bid 422, preparing the Investor for settlement.

In some cases, there will be a higher **volume** of **bids** at the Auction Price than the maximum volume for the Offering, but lower **volume** of **bids** at any higher price. In such a case, it will be necessary to use an...explained. In the preferred embodiment, in the first phase, in Step S40, the system accepts **bids** without reporting the **volume** of the **bids**. This phase, called pre-ordering, lasts for a predetermined time, such as a week (Step...she bid for during the open ordering period. In an alternative embodiment, no investor can **bid** for a larger **number** of shares than she bid for during the open ordering period. In either embodiment, investors... ..at least as high as the auction price divided by the auction price, plus the **number** of shares **bid** by purchasers placing bids with specified numbers of shares whose maximum prices are at least...be the number of shares sought by a buyer, in the case of a purchase **bid** specifying a **number** of shares, or zero otherwise, and let S_i be the number of shares offered by...

Claims:

...I wherein the step of executing an online auction includes a step of accepting a **bid** stating the **number** of dollars desired to be invested. . The method of claim 1, wherein the step of...current auction price to bidders while the bids are 1 5 accumulated.

73 A securities **auction** system, including:

means for receiving bids and determining an **auction** allocation of securities in response to the bids; and means for notifying bidders when their bids are no longer included in the **auction** allocation.

74 A securities **auction** system, including:

means for receiving bids and determining a current price and an **auction** allocation of securities in response to the bids, wherein the current price is a price at which a bidder must bid in order to be included in the **auction** allocation; and means for informing prospective bidders of the current price.

75 The system of claim 70, also including:

means for conducting an **auction** to determine an **auction** allocation of the securities in response to the bids; and means for extending the **auction** until a predetermined period has elapsed during which the **auction** allocation has not changed.. The system of claim 72, also including: means for conducting an **auction** to determine an **auction** allocation in response to the bids; and means for extending the **auction** until a predetermined period has elapsed during which the **auction** allocation has not changed.

77 The system of claim 73, also including:

means for extending the **auction** until a predetermined period has elapsed during which the **auction** allocation has not changed.

78 The system of claim 74, also including:

means for extending the **auction** until a predetermined period has elapsed during which the **auction** allocation has not changed. ENERAL PU100DIRECT MARKETING BRAND BUILDING INDIRECT MARKETINGPROCESS
PROCESS... ..ABIDDF0S40: S42: E 4 WEACCUMULATE BIDS HAS A WEEK YES ACCUMULATE **BIDS**
AND SED AND **VOLUME** I SWITHOUT REPORTING ELAPSED REPORT PRICE AND VOLUME BELOW

MINIMUMPRICEORVOLUMEN0S48:4F 4 E 5 YS **AUCTION** EXTENSION- HAVE1LAPSED AND VOL E 0
SED SINCE VOL YES NOTIFY BUMPED BIDDERS ELAPSED YESS46: S52:mo ALLOCATE SHARES AT
AVE 4 DA YES **AUCTION** EXTENSION SPEED UOFFERING PRICE LAPSED SINCE FIRST NOTIFY
BUMPED BIDDERS ANREACHING STEP ACCEPT... ...856 price p. Call the next highest price jj-.5If X(p)=O,
the **auction** price is p and this is a Type 1 allocation. Exit.0if X(p)=O, the **auction** price is p and this is a Type 1
allocation. Exit.862If nudging the... ...to knock out thepurchasers who have maximum prices at @) eliminates the
excessdemand, the **auction** price is p and this is a Type 2 allocation. Exit.IFIf nudging the... ...864Pthe sellers who
have minimum prices at T) eliminates the excesssupply, the **auction** price is -and this is a Type 3 allocation.
Exit.P866This is a Type 1 allocation with a price between p and - The **auction**P.price is enough aboveS to reduce the
number of-units going to dollarbidders... ...RULES FOR FILLING BIDS WITH MAXIMUM PURCHASE PRICES
ORMINIMUM SALE PRICES EQUAL TO THE **AUCTION** PRICEALLOCATION EXCESS PURCHASE
SALETYPE DEMAND BIDS BIDS0 FILL ALL FILL ALLPOSITIVE...

11/K/50 (Item 23 from file: 349)
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METHOD AND APPARATUS FOR AUCTIONS WITH AUTOMATIC MATCHING

	Country	Number	Kind	Date
Patent				19

Detailed Description:

Method and Apparatus For **Auctions** With Automatic Matching
This application claims benefit of co-pending provisional application
"Automatic Matching System... ...access the market, he must pay a commission to a broker, and must (in non-
auction markets, as the result of the market-maker spread) often accept a sub-optimal price...can accommodate
negatively correlated combo
16
SUBSTITUTE SHEET (RULE 26)
trades.

In existing systems, including **auction** markets such as the New York
Stock Exchange, only the price of the trade is... ...or effectively new) order has been placed, creating a truly
continuous market within which instantaneous **auctions** can take place.

The matching system is enhanced by the ETS automatic arbitrage and
aggregation...hold on credit expires.

- (x) A periodic order is tested.
- (xi) An (account or order **level**) **bid** discount or ask premium is

reduced.

(xii) An (account or order **level**) **bid** premium or ask discount is increased.

(xiii) A trade causes a cumulative order modifier (set...the definition of the item to be traded.

iii) QUANTITY The minimum and maximum acceptable **quantity**.

iv) **BID** or ASK buy or sell side.

1 5 v) PRICES -- the prices from which the...

Claims:

...Displayed Hidd

Cn NUMBERMINIMUM MAXIMUM MAXIMUM Standin Standin I N OrANYcni**BIDS** CUMULATIVE
QUANTITY MODIFIER LOT SIZE PRICreate Another Tier Create Another TierM 0 - 0 0... ...40.00 Discount
First St2p \$20.00 DiscountSecond Sto@ 60.00 Discount I Second **Stop** 50.00 DiscountThird **Stop** 100.00 Discount
I Third **Stop** - 75.00 Discount**EXTRA HOURS** IN TRANSIT, COMPARED TO BEST FLIGHTS(Discounted for
each hour spent in air or on **BID**CUMULATIVE **QUANTITY** MODIFIER LOT SIZE PREMIUMCn@11
CreateAnotherTier Create Another TierDELETED F-o - 1 4... ...99, 12:00 PM P6666666SELLER: JEF ITEM: 1907
S20 STG. PCGS MS65, HICH RLF **QUANTITY**- 8YOUR **BID** 627PERIODIC BID (0-days) -PB
\$88,000.00CUMULATIVE OTY. MODIFIER Quantity Per Item...MP7777777TRADE# MB7777777-1
MB7777777-2 MB7777777-3 MB77777774 TOTALBUYER JEF PBC JBK KLR**QUANTITY** 10 5YOUR **BID** 7 3
25STD. BID (D Dav) -SB S30 00 N/A S 15,000...ANACS 83,000 (250) 2031000 (278) PL8 @000 (245) 209 (12) 20
(0) 34,000**AUCTIONS** A. GAVEL-ICONPCGS, 16,750,1-50 PCs,IMAGES CANIERA-ICON Exp. 03/12...

11/K/51 (Item 24 from file: 349)

Fulltext available through: [Order File History](#)

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METHOD AND SYSTEM FOR CONDUCTING ELECTRONIC AUCTIONS

	Country	Number	Kind	Date
Patent				19

English Abstract:

A method and system for conducting electronic **auctions** is described. A **dynamic** lot **closing extension** feature avoids collisions in **closing** times of multiple lots by **dynamically extending** the **closing time** of a subsequent lot if a preceding lot's **closing time** is **extended** to be too **close** to the subsequent lot's then-currently scheduled closing

time. Scheduled closing times can be... ..extension and the duration of the overtime period(s) can be tailored to a particular **auction**, particular lots of products within an **auction**, and to the particular time within an **auction** process. The **bidding** status of a lot can be set to a "pending" status after the nominal closing time for submission of bids to allow bidders to alert the **auction** coordinator of technical problems in submission of bids. This allows the possibility for a lot to be returned to open status for further **bidding** by all bidders. The **auction** may be paused by the **auction** coordinator to correct technical, market and miscellaneous problems that may arise during the course of an **auction**. Individual bid ceilings can be set for each bidder so that they are required to **bid** lower than certain **thresholds** determined in advance of the **auction**. Failsafe error detection is performed to prevent erroneous bids from entering the **auction**. The **auction** coordinator has the ability to override any erroneous bids that are entered to prevent prejudice to the **auction**.

Detailed Description:

Background of the Invention

The disclosed inventions relate generally to conducting electronic **auctions**, and in particular to business-to-business **bidding auctions** for industrial purchasers.

Traditional Procurement Models

Procurement of supplies has traditionally involved high transaction costs... ..that transactions can take place electronically. There are three models for online procurement: catalog, buyer-**bidding auction**, and seller-**bidding auction**.

The "catalog" model of online procurement was the first to be developed. The first 1... ..a third party, Inventory Locator Service, not a supplier, creating the unbiased electronic market.

Supplier-Bidding Auction

In a supplier-**bidding auction**, bid prices start high and move downward in reverse auction format as bidders interact to establish a closing price. The **auction** marketplace is onesided, i.e. one buyer and many potential suppliers. Typically, the products being... ..are further transformed into product. Example materials include corn syrup or sheet steel.

2

Auction Process

The process for a supplier-**bidding auction** as conducted by the assignee of the present application is described below with reference to Figs. 1 and 2. Fig. 1 illustrates the functional elements and entities in an supplier-**bidding auction**, while Fig. 2 is a process diagram that identifies the tasks performed by each of the involved entities.

The supplier-**bidding auction** model requires that the **bidding** product or service be defined by the buyer (identified as Buyer 10 in Fig. 1). An **auction** coordinator (Coordinator 20 in Fig. 1) works with buyers to prepare for and conduct an **auction** and to define the potentially new supply relationships resulting from the **auction**.

As shown in Fig. 2, in the Initial Contact phase 102 of the **auction** process, the coordinator contacts the buyer, and the buyer provides data to the coordinator. The... ..The buyer makes a decision regarding which potential suppliers will receive invitations to the upcoming **Auction**. Suppliers that accept **Auction** invitations are then sent notices regarding the upcoming **Auction**, as well as client software to install in preparation of participating the **Auction**.

In the RFQ phase 104, coordinator 20 works with the buyer 10 to prepare a... ..portion of the business for which they are best suited.

3

lot level,

In the **Auction** Administration phase 106, coordinator 20 coordinates the **Auction** and administers the **Auction** setup and preparation. The coordinator sends a RFQ to each participating supplier, and assists participating suppliers with preparation for the **Auction**.

In the **Auction** phase 108, suppliers 30 submit bids 58 on the lots and monitor the progress of the **bidding** by the participating suppliers 30. The coordinator assists, observes, and administers the **Auction**.

When the **bidding** period is over, the **auction** enters the **Auction** Results

Administration phase 110. In this phase, coordinator 20 analyzes and administers the **Auction** 15 results, which are viewed by buyer 10. The buyer begins to conduct final qualification of the low **bidding** supplier(s). The buyer may retain the right not to award business to a low **bidding** supplier based on final qualification results or other business concerns.

In the ensuing Contract Administration... ..52 are then drawn up between buyer 10 and suppliers 30.

Communications and Software

The **Auction** is conducted electronically between potential suppliers 30 at their respective remote sites and the coordinator...using modems, or direct network connections. A computer software application is used to manage the **Auction**. The software application has two components: a client component 31 and a server component 23... ..suppliers 30.

The client component is used by suppliers 30 to make bids during the **Auction**. The bids are sent via the network service provider 40 to the site of the... ..component 23 of the software application. The client component includes software

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Conduct of an **Auction**

The conduct of an **Auction** will now be described in conjunction with the operation of the software application. The **Auction** is conducted on a specified date, and commences at a specified time. **Bidding** on each of the lots of products involved is scheduled to begin simultaneously at 5 the start time for the **Auction**. Each lot is assigned a scheduled closing time after which further bids by potential suppliers... ..not cotenninous.

Associated with each lot at any given time in the progress of the **Auction** is a **bidding** status. The possible **bidding** statuses are illustrated in Fig. 5. The status initially assigned to each lot, before the scheduled start time of the **Auction**, is "Available." This status indicates that the lot will be available for **bidding** in the **Auction**. In the normal sequence of an **Auction**, the next **bidding** status is "Open," which indicates that the **Auction** is underway and that bids can be submitted for the lot. There are two possible **bidding** statuses to which a lot with an "Open" status can change: "Overtime" and "Closed." Overtime indicates an **extension** of **time** to allow **bidding** to continue after the scheduled closing time for **bidding** on the lot. If **bidding** is still active at the end of a first Overtime period of predetermined duration, the server application allows a second Overtime, and so on, until **bidding** has closed. "Closed" indicates that the server application will no longer accept bids on the lot. A lot's status changes from Overtime only to Closed.

Information regarding the **Auction** that can be displayed by the client application is illustrated in Figs. 6A - 6D at selected times during the conduct of an **Auction**. Fig. 6A illustrates lot information provided at the start of an **Auction**. The lot closing times are shown for each of

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is "OPEN." The "Market Bid... ..the upper right corner of the display.

The presented information changes during the course of **bidding**. For purposes of illustration in this example, a series of bids for lot 01 is... ..status of lot 01 are also illustrated in Fig. 7 for selected times and corresponding **bidding** events during the **Auction**. Fig. 7A shows a time line for lot 01, with the bid event letters corresponding to the bids in Fig. 8.

This **Auction** employs a decision rule to trigger overtime that can be stated: "when a low 1... ..10:32.

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therefore closes at 10:32.

Fig. 6B shows the status of the **Auction** at 10:27. Lot 01 is shown as "Open," with a current Market Bid (best current bid) of \$374,586. This reflects the status after **bidding** several bids have been received. Fig. 6C illustrates the status of the **Auction** at 10:30 AM, after bids B and C. In bid B, Bidder1 5 submitted another best bid (\$373,063), which initiated a one-minute overtime **period, extending** the **closing time** for lot 1 to ...31. In bid C, Bidder7 submitted another best bid (\$372,500), which initiated another one-minute overtime **period, extending** the 1 0 **closing time** for lot 1 to 10:32. Bid D, submitted at 10:30:45 was... ..within one minute of closing, was not a new low bid and therefore did not **extend** the **closing time** for Lot 1. Lot 1 therefore closed at 10:32, with a Market Bid of \$371,373, as shown in Fig. 6D (which shows the status of the **Auction** at 10:32:05).

Bidding Dynamics

Suppliers prepare their price quotes in light of a number of factors. These factors... ..that are not predictable during the preparation of quotations but that are evident during the **auction** can also be important in determining, for example, how aggressively other participants may bid.

Because business-to-business **auctions** are conducted for important custom components, low bidders may still be "passed over" if other bidders demonstrate non-price advantages.

Sometimes **auctions** involve parts that this purchaser has procured before, and are possibly being made currently by... ..being made by a supplier, that supplier would be termed the "incumbent supplier." In an **auction** situation, the incumbent supplier is placed in a position of having to defend its contract with the purchaser.

7 **Problems with Prior Auction Process**

1 5 The prior **auction** process described above has been found to produce suboptimal results for buyers in light of... ..include: a) multiple lot closing time collisions; b) premature lot closings; c) difficult and inflexible **bidding** constraints due to lot/line item structure; d) possible prejudice to bidders resulting from technical... ..same time. By spacing the closing times for each lot, a supplier knows that while

bidding

on one lot, the next lot in the **Auction** will not close. This staggered closing is one way to work around cognitive limits - each... ..scheduled closing time of a subsequent lot. This situation begins to tax cognitive limits, and **bidding** opportunities on the subsequent lots are often missed. Although this problem might be resolved by... ..shown that even this approach

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scheduled close.

The second problem is premature closing of **bidding** on lots. Just as in an in-person **auction**, **bidding** activity tends to increase close to the scheduled closing time. Like the "going, going, gone" **auction** concept, it is possible to achieve a better **auction** price if the **auction** is allowed to continue if bids are still being made. As described above, this concept... ..of a specific lot is automatically extended based on the flow of bids into the **Auction**. Overtime prevents bidders from hanging 0 back and submitting last minute bids in an attempt... ..incumbent supplier might be expected to do, would not trigger an overtime. Unlike in-person **auctions**, industrial **5 auctions** need to allow second place bids. Thus, it has been found that this is an overly simplistic model, which may still be cutting off **bidding** too soon. A low bidder needs a chance to react to a second place bid... ..fixed offsets between lot closing times, with fixed trigger time frames (the period before scheduled **closing** or current Overtime **ending**), and fixed **extension periods** for Overtime. In industrial markets, **bidding** events involve commodities of varying complexity and component packages of different sizes. Accordingly, bidders may... ..respond to a bid. The amount of overtime may need to be customized for specific **bidding** events or for individual lots within an **Auction** to obtain the optimal market dynamic. It is therefore desirable to provide more flexibility in...system is that bids needed to be made at the line item level. However, the **auction** takes place at the lot level, where all of the line item quotes are added... ..a market may

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an individual bidder.

In addition, market events or imperfections may disrupt **bidding** activity and require communication with bidders before the **auction** can continue. For example, in one **auction bidding** for an **auction** lot commenced and it became clear that some of the bidders were including tooling costs... ..this example, the bidders needed to be contacted and informed of the correction before the **auction** could proceed with all bidders on an equal footing.

Other external factors may disrupt the operation of the **auction** or participation by bidders.

In another example, a snow storm prevented many bidders from getting to work on time for the opening of the **auction**. This was not discovered until many bidders failed to commence **bidding**.

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Lot A into Lot B.

In the industrial market, the stakes can be quite... ..that would be incurred by honoring an erroneous bid is substantial.

In an online industrial **auction**, an incorrect bid can upset the **bidding** behavior of other bidders creating inequity for all participants in the market. All bidders in... ..in error, and the other bidders proceed to bid in response, the integrity of the **auction** is damaged. This can result in suboptimal results for both buyers and suppliers.

Summary of the Invention

The problems encountered with the operation of the prior **auction** system are overcome by the **auction** system of the invention, which enables flexible dynamic alterations of market closing times, line item decision rules, **auction** pause, bidder-specific bid limits, and the ability to detect and prevent erroneous bids.

The... ..be adjusted to suit the complexity and size of the market lots involved in the **bidding** event. This permits bidders to have more overtime to respond to each new bid if... ..calculation time.

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for different market lots at the same time.

1 5 Once **bidding** activity has ceased, a lot is placed into "Pending" status prior to closing the lot... ...technical disruption a lot can be returned to "Open" status for all participants to allow **bidding** activity to continue. Pending status will then be used again to dynamically alter lot closing... ...irrespective of any technical disruptions that occur during the event without prejudicing the positions and **bidding** activity of other bidders.

"Pause" status ensures that disruptions to an **auction** can be dealt with equitably without prejudicing existing **bidding** activity or positions achieved by bidders. **Auction** Pause allows the **auction** coordinator to indefinitely "freeze" an **auction** without disrupting the bids placed before the pause went into effect. The Pause status can be applied to an entire **auction** (all lots) or to specific lots within an **auction**. The Pause status can be applied at any time during an **auction** and will override any other status currently in effect. In one embodiment, no bidder is able to submit bids while the **auction** is in Pause status. In an alternate embodiment, bids may continue to be 1 2... ...items within a lot. Decision rules can be set dynamically during the course of the **bidding** event by the bidder.

Flexible line-item decision rules enable bidders to lock-in a... ...the comfort of setting floors or ceilings on individual or cost component bids.

During the **bidding** event, fixed components can be reevaluated and unlocked if necessary in response to movements in the market beyond original expectations. This **bidding** flexibility 1 5 allows bidders to participate in the **auction** fully, and increases competition.

Bidder-specific bid rules enable an **auction** coordinator to maximize the competitive nature of an **auction**. In a downward **auction**, each bidder is assigned an individual bid ceiling by the buyer. This bid ceiling sets... ...that erroneous bids can be dealt with equitably without prejudicing other bidders or interrupting the **auction**. A confirmation box is presented to the bidder to confirm the amount of a bid... ...entered. All bids must be checked and confirmed before they will be submitted to the **auction** server.

Predefined " ...the bidder to limit bids to a certain range. If during the course of an **auction**, the bidder bids outside that range, additional bid confirmations may be required, or the bidder may be prevented entirely from entering bids that fail "failsafe" criteria. The **auction** coordinator may override or remove erroneous bids from the **auction** in real-time. Bids can be quickly and efficiently removed before it prejudices the positions... ...2 is a schematic illustration of the tasks performed by the entities involved in an **auction** process.

Fig. 3 is a schematic illustration of the communications links between the coordinator and the potential suppliers in an **Auction**.

Fig. 4 is a schematic illustration of the client and server components of the computer software application that conducts the **Auction** and the hardware at the sites of the coordinator and the potential suppliers on which the client and server components operate.

Fig. 5 is a schematic illustration of the possible **bidding** states in the prior **auction** system.

Figs. 6A - 6D illustrate the information displayed by the client application in the prior **auction** system at various times during a sample **Auction**.

Figs. 7A - 7B illustrate the change in **bidding** status of one lot in the **Auction** illustrated in Figs. 6A - 6D.

Fig. 8 illustrates a series of bids submitted on one of the lots during the **Auction** illustrated in Figs 6A - 6D.

Figs. 9A - 9B illustrate the changes in **bidding** status and closing times for multiple lots using the **dynamic lot closing extension** feature.

Fig. 1 0 is a schematic illustration of the possible **bidding** states in the **auction** system.

Fig. 1 1 is a flow chart illustrating the operation of the **dynamic lot closing extension** feature.

Fig. 12 is a flow chart illustrating the operation of the flexible overtime feature... ..Figs. 15A- 1 5 C illustrate error detection warning and confirmation messages.

Detailed Description

The **auction** method and system of the invention are described below. Seven aspects of the system and method are described: a) **dynamic lot closing extension**; b) flexible overtime; c) flexible bidder-determined line item decision rules; d) pending status; e) bidder-specific bid limits; f) **auction** pause; and g) error detection and prevention.

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is five time increments Δt . The minimum... ..time increments Δt .

Fig. 9B shows the changes of status of various parameters in the **auction** as bids are received. Fig. 9B identifies the time interval during which the bid is received, the **bidding** status of Lot X before and after the bid is received, the **bidding** status of Lot Y before and after the bid is received, the closing time of... ..and the closing time of Lot Y before and after the bid is received.

The **Auction** begins at time t_1 . At the beginning of the **Auction**, and during the initial course of **bidding**, both lots have a **bidding** status "Open." During the course of **bidding**, a bid submitted on Lot X can trigger an extension of Lot X's closing... ..of time before the closing time). Thus, bids A and B do not change the **bidding** status of Lot X or the closing times of the lots, because they are not... ..triggers "Overtime" for Lot X. This is reflected in Fig. 9B, which indicates that the **bidding** status of Lot X was "Open" before the bid and "Overtime" after the bid. The... ..remains "Overtime," but because it was received within one increment Δt of the then-scheduled **closing** time t_7 , the scheduled **closing time** is further **extended** by one increment Δt to t_8 . Again, there are still at least three intervals Δteffect on the closing time of Lot Y.

When Bid E is received, both the **bidding** status and the closing time of Lot X are unaffected, because the bid is received... ..lot's closing time to less than the minimum interval, and the second lot's **closing time** is therefore **extended** sufficiently long that it in turn is too close to the scheduled closing time of a third lot, the third lot's **closing time**

is in turn **extended** to be at least the minimum interval beyond the second lot's **closing time**.

Flexible market **closing extensions** is implemented in the **auction** system by storing a parameter in storage 22B that specifies the minimum interval between lot... ..memory 22A for use by the server component of the application software when an **Auction** is loaded. When the closing time for a given lot is adjusted, the closing time ...intervals between the closing times of the

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Flexible Overtime

As described above, the prior **auction** system employed a simple, static model for Overtime, in which Overtime was triggered by a new low bid submitted within a predetermined time interval before a scheduled **closing** time, and the

scheduled **closing time** was **extended** by a predetennined **time** period. This rule can be articulated as: "a market-setting low bid, received in the... ..an increment At to the scheduled closing time." This Overtime rule was applied to all **Auctions**, to all lots in an **Auction**, at all times during an **Auction**. The flexible overtime feature of the present **auction** system addresses the shortcomings of the prior static overtime feature.

I O Flexible overtime has... ..triggers. The variable duration aspect involves overtime extension intervals (time intervals by which a scheduled **closing** time, whether an initially-scheduled **time** or an **extended time**, is **extended**) and overtime trigger **intervals** (intervals before a scheduled **closing** time in which a bid meeting defined criteria will trigger overtime). These intervals can be... ..submitted within the appropriate interval was lower than the current best bid.

In the disclosed **auction** system, overtime triggers can be based on other parameters and criteria.

For example, the rank... ..include the option to vary the overtime extension interval dynamically during the course of the **Auction**.

It should be noted that an overtime trigger can also be based upon evaluations of... ..particular supplier). As a general rule, the 1 5 overtime trigger seeks to extend the **auction** for a lot if there is any indication that further **bidding** bid.

Flexible Bidder-Determined Line Item Decision Rules

This **bidding** feature of the **auction** system of the invention provides a method for allowing bidders to bid at the lot... ..flexible line-item decision rule enables a buyer to automatically adjust aspects of line item **level bids** based upon one or more inputs at the lot or line item level.

In one... ..remains unchanged. However, limits can be locked and unlocked dynamically during the course of an **Auction** by the bidder.

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event.

An example of the Lock/Unlock feature is shown below...93 \$17.93
\$27.00 Lot Price

The locked / unlocked feature is implemented in the **auction** system by data structures maintained in the client software that support capture of locked and... ..item level. These flexible line-item decision rule can be created to accommodate any pre-**auction bidding** strategy that could be

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level.

Pending Status

The pending status feature of the **auction** system of the invention provides an intermediate **bidding** status for each lot to transition the lot from a status in which bids can... ..to a status in which bids will no longer be accepted (Closed). The inter-mediate **bidding** status is "Pending." This status indicates that bids are not being accepted 1 5 on the lot but that the lot may subsequently be returned to Open status for **bidding**. This allows a time period for a bidder who has missed an opportunity to bid... ..then evaluate the asserted fault and determine whether it is appropriate to allow ftu-ther **bidding** on the lot. If so, the lot can be returned to Open status for **bidding**. If not, the lot is Closed. The lot can be returned to Open status immediately... ..a convenient time to re-open is scheduled.

Pending status is implemented in the illustrated **auction** system by storing two parameters in storage 22B: one

parameter that specifies the length of... ..into memory 22A for use by the server component of the application software when an **Auction** is loaded. When the scheduled closing time for a lot is reached, the **bidding** status is set to "Pending" instead of "Closed." If the automatic close flag is set... ..lot will remain in the Pending status until manual intervention takes place. Manual intervention

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Auction Pause

Auction Pause allows the **auction** coordinator to indefinitely "freeze" an **auction**, without disrupting the bids placed before the pause went into effect. The pause status can be applied to an entire **auction** (all lots) or to specific lots within an **auction**. The Pause status can be applied at any time during an **auction** and will over-ride any other status currently in effect. While in Pause status, all existing bids are preserved. An entire **auction** (or individual **auction** lots) can be I O held in Pause status for an indefinite period of time. In one embodiment, no bidder is able to submit bids while the **auction** is in Pause status. In an alternate embodiment, bids may continue to be received but would not be entered into the **auction**. In this embodiment, bids could be held in a queue awaiting entry upon the removal of the Pause status.

The **auction** coordinator determines the lot status that applies once the pause is removed.

5 While in Pause status, the **auction** server clock will continue to operate. Hence, without any intervention by the **auction** coordinator, the lot status that applies once the pause is removed will be the lot... ..if the scheduled lot closing time passes while the lot is in pause, and the **auction** coordinator lifts the pause status, the **auction** lot will return to "Closed" status. However, the **auction** coordinator can alter the scheduled timing that applies to all lots (i.e. alter the... ..the correct lot status applies once the pause is removed. Thus, all bidders see the **auction** server clock match the correct time while the **auction** coordinator can achieve any relevant lot status once the pause is removed.

For example, as shown below in Table 1, an online **auction** is scheduled to open at 9:00 am at which time all lots will open...Table 1

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Suppose there is a technical disruption at 8:50 AM and the **auction** coordinator is not sure how long it will take to resolve the issue. Instead of canceling the **auction**, the **auction** coordinator places the entire **auction** in Pause status. The **auction** now appears as shown in Table 2.

Current Time: 8:50:31 AM

Lot Lot... ..2

The technical disruption is resolved at 9:32 AM. At this point, if the **auction** coordinator lifted the Pause status, Lot 1 would immediately go to Pending and then to... ..interval has been set to a total of 5 minutes after scheduled close by the **auction** coordinator.) Bidders would therefore not have an opportunity to place bids for Lot 1. To avoid this outcome, the **auction** coordinator decides to alter the opening times for all lots to 9:45 AM and... ..this has the effect of returning all lots to Available status, and bidders can commence **bidding** when the lots open at 9:45 AM. The **auction** now appears as shown in Table 3. Note that the **auction** coordinator could also have shifted the closing times only. In that case, all lots would have gone to Open status and bidders could have commenced **bidding** immediately.

Current Time: 9:32:22 AM

Lot Lot Name Opening Time Closing Time Status... ..00 AM Pause

Table 4

The technical disruption is resolved at 10:30 AM. The **auction** coordinator alters the closing times (but not the opening times) of the lots to give... ..space out the closing times of Lots 2 and 3 at 20 minute intervals. The **auction** coordinator does not change the opening times of the lots, and therefore preserves bids that have already been made. All lots return to Open status when the **Auction** Pause is lifted and may commence **bidding** immediately. The

auction now appears as shown in Table 5.

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Current Time: 10:30:25 AM

Lot... ...00 AM Open

Bolts 9:45:00 AM 11:20:00 AM Open

Table 5

Bidding continues on Lot I until 10:55 before the final bid is placed and the... ...2 into Extended status moving the scheduled closing time back to 11:05 AM. The **auction** now appears as shown in Table 6.

Current Time: 10:55:07 AM

Lot Lot... ...the bidders on Lot 2 have made an incorrect assumption in preparing their quotes. The **auction** coordinator needs time to communicate with all bidders and correct the error, and estimates that... ...closes.

However, there is no disruption to Lot 3, which can continue as scheduled. The **auction** coordinator places Lot 2 in the Pause status, and changes the scheduled closing time for Lot 2 to 11:40 AM. No change is made to Lot 3.

Bidding continues on Lot 3, but no bids can be placed on Lot 2 at this point. Lot 2 is now scheduled to close after Lot 3. The **auction** now appears as in Table 7.

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Current Time: 10:56:12 AM

Lot Lot... ...will ensure that bidders have adequate time to return to Lot 2 once Lot 3 **bidding** ends. The **auction** now appears as shown in Table 8.

Current Time: 11:17:22 AM

Lot Lot... ...The lot statuses will now follow their normal procedures through to the end of the **auction**.

Bidder-Specific Bid Limitations

It is common for sellers (upward **auctions**) and buyers (downward **auctions**) to place market limitations on the amounts that bidders may submit as valid bids during the course of an online **auction**. For example, a buyer may require that **bidding** start below a certain ceiling.

In this case, the buyer is not interested in making... ...obtain some form of price discovery with respect to individual bidders prior to the online **auction**. For

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the online **auction**.

A first option is to set a ceiling at the highest pre-bid. In this case, suppliers who submitted lower pre-bids prior to the online **auction** may commence **bidding** at a level higher than their pre-bids. During the course of the event, the **bidding** activity may not reach the level of the lowest pre-bid. This could occur for... ...the market approaches the value of their pre-bids. This is a situation unique to **auctions**

in industrial markets where the buyer can award to a non-low

bidding supplier (switching costs and non-price variables establish "stickiness" in **bidding** behavior). Without the leaders 1 5 **bidding** at all, there may not be enough competition to drive the online **auction** to its potential.

Possibly, no new bids will be received online at all. The buyer in this case has lost the potential for the interactivity of the **auction** to produce a better result.

Second, if the rules of the online **auction** require the buyer to forego the pre-bids (for example, to avoid the problem described... ..then the leaders can start much higher than their pre-bids. In fact, the low **bidding** pre-bidder only needs to bid slightly lower than second place. If there was a... ..a ceiling at the lowest bid. In this case, some suppliers may be prevented from **bidding** because they cannot meet the ceiling. This does not matter if the buyer is indifferent... ..buyer awards to the lowest bidder either at the ceiling or the market price if **bidding** goes below the ceiling). However, in industrial business-to-business **auctions** it is not uncommon for the buyer to choose a non-low **bidding** supplier (switching costs and non-price variables affect the final decision). Many suppliers who did not have the lowest bid prior to the online **auction** may want to reduce their bid to close the gap on the lowest placed bidder... ..but they may be able to improve their position. However, the ceiling in the online **auction**

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Historic Price = \$10,564,9300

Pre-bid Results Actual Online **Auction** Results

(w/Bidder-Specific Bid

Limitations)

Rank Bidder Bid Savings Bidder Bid Savings

M) M... ..lower their price any further through manual negotiation. The buyer decided to hold an online **auction** but wanted to ensure that suppliers would not start **bidding** higher than their pre-bids. Since the bids were

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Historic Price = \$10,564,300

Pre-bid Results Actual Online **Auction**

Results (w/Bidder-Specific

Bid Limitations)

Rank Bidder Bid Savings Bidder Bid Savings

M M... ..99465@808 10.4%

Table 10

In this example, as a result of the online **auction**, Suppliers B, C and D lowered their bids to the "walk-away prices" assumed above... ..to the bid placed offline. If they did not bid at all, according to the **auction** rules they would have been ineligible for an award.

Consider the potential outcomes in the... ..shown below in Table 1 1.

Historic Price

\$10@564@300

Pre-bid Results Online **Auction** Results

(w/Bidder-Specific Bid

Limitations)

Rank Bidder Bid Savings Bidder Bid Savings

M M... ..32

shown below in Table 12.

Historic Price

\$10@564@300

Pre-bid Results Online **Auction** Results

(w/Bidder-Specific Bid

Limitations)

Rank Bidder Bid Savings Bidder Bid Savings

M M...each reach their walk-away price. Once they reach their walk-away price they stop **bidding**. When the lowest bid reaches Supplier B's walk-away price (\$8,874,012). all... ..just below Supplier B to reach first place. With no

response from Supplier B, the **auction** closes. The buyer has lost the potential to extract an additional \$348,065 from Supplier... It is not uncommon for a bidder to make errors when placing bids during an **auction**.

The prior system prevented some of these errors through the use of a confirmation pop... that this information is correct prior to sending the bid across the network to the **auction** server. The bidder must either confirm the bid by clicking on the "confirm" button or... result in no bid being entered. Once a bid is confirmed and sent to the **auction** server, it is entered into the online **auction** and market information from that bid is displayed to all bidders.

However, the confirmation pop... entered erroneous bids even though they had to confirm the bids. The pace of the **auction**, and **bidding** on multiple lots simultaneously allows for bidder errors. Because erroneous bids affect the critical integrity of

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coordinator to override or remove erroneous bids from the **auction** in real-time. A bid can be 1 5 quickly and efficiently removed before it... in response to an erroneous bid, all consequential bids can be removed as well. Accordingly, **auctions** can be completed by picking up from the point of the last valid bid, rather than starting over.

If a bid is overridden, the **auction** coordinator warns the bidders that an erroneous bid has been received and removed through a... is sent to every bidder and appears as a warning on their user interface. The **auction** coordinator types in a text message and send it to each bidder over the same network that is running the **auction**. Message boxes appear on **bidding** screens and bidders must click "OK" before they can continue to bid.

As an example... D, & E are engaged in a competitive interaction on Lot I of a multi-lot **auction** between 1:25 PM and 1:27:30 PM at a price between \$1.5... 27:30 PM \$19542@899 12.75%

Table 13

Prior to the opening of the **auction**, the **auction** coordinator activated three failsafe rules. First, once a bidder has placed an initial bid, they... bid more than 70% below historic price will be accepted at any point throughout the **auction**.

Supplier F decides to commence **bidding** on Lot 1. On their opening bid, Supplier F 5 omits a zero from the...activated and the bid is entered.

Supplier F immediately recognizes the mistake and contacts the **auction** coordinator.

After confirming that this is a bona fide error, the **auction** coordinator warns the other 5 participants that the latest bid from Supplier F is erroneous and activates the override feature.

The bid is removed from the online **auction**.

Bidding continues on this lot without a disruption in the **auction** process, and without prejudicing the position of the other bidders.

The operation of the error... shown in Fig. 15C. If the bidder reconfirms the bid, then is entered into the **auction** at step 860. If the bid passed the

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submitted in the **auction**.

While the invention has been described in detail and with reference to specific embodiments thereof... from the spirit and scope thereof In particular, it should be noted that while the **auction**:fmcctions described above have been described in the context of downward pricing **auctions** the **auction** fmcctions can be equally applied to upward

pricing **auctions**. Thus, it is intended that the present invention cover the modifications and variations of this...

Claims:

1 A method of conducting a business-to-business online **auction** for custom industrial products or materials between a buyer and a plurality of potential sellers... ..time interval;

(d) receiving bids from potential sellers for said first lot; 1 3 (e) **extending** said **closing time** of said first lot by an incremental amount of time upon the occurrence of a predetermined lot extension criterion relating to said 1 5 received bids; and 1 6 (f) **extending** said **closing time** of said second lot if said **extended closing time** of 1 7 said first lot precedes said closing time of said second lot by... ..sellers; 39 interval.

8 The method of claim 7, further comprising the steps of upon the **extension** of a **closing time** for said second lot, determining whether a closing time for a third lot is within said predefined **time interval** from the **extended closing time** of

said second lot; and if the closing time for said third lot is within a predefined **time interval** from the **extended closing time** of said second lot, **extending** said **closing time** of said third lot such that the **time** between the **extended closing time** of said third lot and the **extended closing time** of said second lot is at least said predefined time interval.

9 A method of conducting a business-to-business online **auction** for custom industrial products or materials between a buyer and a plurality of potential sellers... ..an overtime period is triggered in said one of said plurality of lots, extending the **auction** for said one of said plurality of lots by an amount of time defined by... ..the step of dynamically varying an overtime extension parameter associated with a lot during an **auction** for the lot.

13 A method of conducting a business-to-business online **auction** for custom industrial products or materials between a buyer and a plurality of potential sellers... ..than said current best bid, identifying said received bid as said current best bid and **extending** said **closing time** for

1 8 said first lot by a second time interval; (iii) if said received... ..iv) if said received bid satisfies at least one behind-market bid lot extension criteria, **extending** said **closing time** for said first lot by a third time interval.

14 The method of claim 13... ..of storing an ordinal position parameter in memory.

24 A method of conducting an online **auction** between a buyer and a plurality of potential sellers, comprising the steps of (a) offering... ..d) if said received bid satisfies at least one behind-market bid lot extension criteria, **extending** said **closing time** for said first lot by a second time interval.

25 The method of claim 24... ..step (d) comprises the step of storing an ordinal position parameter in memory.

34 A **bidding** method in an **auction** between a buyer and a plurality of potential sellers, comprising the steps of (a) receiving... ..said initial line item bids.

45 of each of said line item bids.

50 A **bidding** method in an on-line **auction**, comprising the steps of (a) defining a flexible line item decision rule, said flexible line item decision rule being created to accommodate a pre-**auction bidding** strategy relating to one or more aspects

of a line item portion of a bid... ..item portions of said bid.

53 A method of conducting a business-to-business online **auction** for custom industrial products or materials between a buyer and a plurality of potential sellers... ..a plurality of potential sellers, said lot having at least one product; (b) setting a **bidding** status for said lot to a first **bidding** status indicating that the buyer will accept bids from the potential sellers on said lot... ..55 The method of claim 53, wherein step (g) comprises the step of returning said

bidding status for said lot to said first

bidding status after **auctions** on other lots have closed.

56 The method of claim 53, further comprising the steps... ..value that specifies the length of time that said lot will remain in said

second **bidding** status; and storing a second value that specifies whether said lot should automatically be changed to said third **bidding** status upon the expiration of the length of time specified by said first value.

57 A method of conducting a business-to-business online **auction** for custom industrial products or materials between a buyer and a plurality of potential sellers... ..which bids for said lot are to be submitted by potential sellers;(c) setting a **bidding** status for said lot to a first status indicating that the buyer will accept bids... ..and a closing time for each of said plurality of lots;(c) determining whether an **auction** pausing event has occurred;(d) if an **auction** pausing event has occurred, changing said **bidding** status for at least one of said plurality of lots to a paused status indicating... ..said plurality of lots during said paused status for said lot; and (g) changing said **bidding** status for said lot from said paused status to a second 1 5 status once said **auction** pausing event has been corrected.

61 The method of claim 60, wherein step (c) comprises... ..62 The method of claim 60, wherein step (d) comprises the step of changing said **bidding** status from an available status to a paused status.

48 status from a paused status... ..70 The method of claim 60, wherein step (f) comprises the step of changing said **bidding** status from a paused status to an extended status.

71 A method of conducting an online **auction** for custom industrial products or materials between a buyer and a plurality of potential sellers... ..setting an individual bid ceiling based on price discovery prior to the start of the **auction**.

73 The method of claim 71, wherein step (a) includes the step of setting an... ..based on the potential seller's previous offline bid.

74 A method of conducting an **auction**, comprising the steps of
49 the steps of (a) offering ...an erroneous bid I 1 and any consequential bids of said erroneous bid from the **auction**; and (d) communicating with potential bidders that said erroneous bid and said 1 3 consequential bids have been deleted from the **auction**.

86 The method of claim 85, wherein step (b) comprises the step of receiving a... ..method of claim 85, wherein step (c) comprises the step of deleting bids from the **auction** based upon input from an **auction** coordinator.

88 The method of claim 85, wherein step (d) comprises the step of causing...

11/K/52 (Item 25 from file: 349)

Fulltext available through: [Order File History](#)

PCT FULLTEXT

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	Country	Number	Kind	Date
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Patent			19
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Detailed Description:

...key information, etc. It also contains end user profile 150, which stores preferences for required **response** time, acceptable qualification **levels**, acceptable price **levels**, automatic **bid** amounts, and the like. it also contains copies of each bid request 160 and bid...which end users select the experts to which end user request 120 is transmitted.

Additionally, **bidding** and negotiating protocols are described which allow end users to select the most appropriate expert... ...process.

In order to select from among many experts responding to end user request 120, **bidding** protocols can be used in which the expert has an expert profile 155 that is... ...a bid or rejection based on expert profile 155.

End user profile 150 may contain **bidding** rules as well, such as excluding bids above or below a predetermined amount. The end... ...to negotiate the price for responses, or that the experts must engage in an active **bidding** session in order to get his business.

Another method for end users and experts to...describe alternative embodiments of the negotiating protocols of the present invention.

Figure 30 shows a **bidding** embodiment where the end user creates end user request 120 that includes a requirement that... ...profile 150. The end user, therefore, does not need to be directly involved in the **bidding** at all.

In the above procedure, the expert is directly involved in the **bidding** process. In an alternative embodiment, the expert's profile 155 is stored in expert database 255. Based on expert profile 155, central controller 200 automatically directs the **bidding** process.

For example, a lawyer might establish expert profile 155 which automatically bids two hundred... ...wills, except for those requiring completion in two hours or less.

Figure 31 shows an **auctioning** embodiment where the end users create end user requests 120 and submit them to central... ...165 on end user request 120 at step 3120. There may be a number of **auction** rounds (known as a repeated **auction**) in which

experts have a chance to submit new bid offers 165. This contrasts with the one-shot **auction** described in Figure 30, where there is only one round of **bidding**. Each expert sees his bid offer 165 as well as the other experts' bid offers... ..user is notified of the bid offer 165 at step 3140.

Figure 32 shows a **bidding** embodiment where the end user is **bidding** for an expert's time. If an end user - 58 needed a level 6 patent...accepts the expert's terms or decides to retract end user request 120.

Although the **bidding** systems described above are based on price, alternative systems can be based on response time... ..end user requests 120 would be accepted, etc. The end user specifies which type of **bidding** is desired and central controller 200 makes the appropriate adjustments to bid request 160.

The above **auction** protocols are meant to be illustrative, and do not represent all of the possible protocols... ..multiple expert answers 130 to a given end user request 120, for example, there are **auction** protocols to handle the additional complexity. A uniform **auction**, for example, sells each opportunity for expert answer 130 at the second-highest bid. Other formats such as "Dutch" **auctions** are equally applicable.

The **bidding** process can be used with any of the previously described embodiments, using either an asynchronous...answer 130 is transmitted to the end user so that the review process does not **extend** the completion **time** of **end** user request 120.

The reviewing expert decides whether or not expert answer 130 provided is...describing the job request and asking the expert if he might be willing to consider **bidding** on the assignment by 5:00 PM, Friday, July 12, 1996. The name of the...expert service market" by enabling both users and experts to bid on services. An electronic **auction** can be implemented which allows users to bid for an expert's time, experts to...

11/K/53 (Item 1 from file: 635)

Business Dateline(R)

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Text:

...with this predicament, Kaufman & Broad, the state's largest home builder, plans to hold an **auction** over the Internet. It will be the first such electronic close-out **auction** held by an industry leader.

Within the home building industry, Kaufman & Broad's experiment with Internet **auctions** is praised by some as innovative and proof of business savvy. But others anticipate an angry reaction from buyers who have closed home sales for prices that an **auction** may undercut.

On Oct 29, would-be buyers will be able to stake claim to...

...are ready for occupancy or under construction with completion expected by Nov. 30.

Real estate **auctions** were last popular in Southern California during the deep recession of the early 1990s when...

...it as a positive marketing approach."

Last July, Moss said, the company used an Internet **auction** for 10 single family homes and nine lots that comprised the first phase of a Coachella Valley subdivision called Bermuda Dunes.

Moss said the success of that **auction** and a traditional vocal **auction** of homes in Sacramento a year earlier encouraged the home builder to try the computerized **auction** process in the Inland Empire on a much larger scale, this time to close sales...

...number of projects all at once.

Although Kaufman & Broad insists that the properties it is **auctioning** are not depressed, bidders are expected to be attracted to the **auction** with the hope of landing a deal.

"I think everyone is looking for a bargain...

...president of sales for HomesDirect.com, the Pasadena-based company that will be conducting the **auction**.

In response, she said, "We try to make sure the opening bids are at a...

...listed for \$189,000 will have a minimum asking price of \$170,000 at the **auction**.

Because of the cost savings that an **auction** generates by speeding up sales, Moss said, Kaufman & Broad can sell the houses below list...

...Moss and Burgin said while would-be home buyers can learn details about the Internet **auction** on the Kaufman & Broad and HomesDirect.com Web sites, participants are encouraged to visit the subdivisions in person, where they can obtain **auction** registration cards.

It is necessary to be registered and financially qualified by a mortgage lender before the **auction**, according to the **auction** officials. And a pre-**auction** class will be held where registrants can practice **bidding**.

On **auction** day, bidders can place their bids via the Internet from home or in person at the **auction** site in the Hilton Ontario Airport Hotel. **Bidding** starts at 2 p.m.

Charles Plott, a professor of economics at CalTech and developer of the **auction** software that Kaufman & Broad is using, said the software is designed to allow a builder to get the highest price possible from the **bidding** while giving bidders the best chance to buy the house they want most at an...

...this work, Plott said, is a system in which all of the houses in the **auction** are available for **bidding** simultaneously. The top bids for each home appear on the computer screen, allowing a bidder who is priced out of the **bidding** on his or her favorite house to immediately start **bidding** on an alternative house.

The **auction** on all the homes starts and **stops** at once, with the **bidding time extended** three **minutes** after each fresh bid. Burgin said she expects that the 65 homes will be auctioned in about two hours.

Compared to an oral **auction**, Burgin said, Internet **bidding** is "leisurely." At an oral **auction**, she observed, houses are generally sold one after the other, with each sale completed in ...

...Meyers Group, a real estate consulting firm, said Kaufman & Broad's use of an Internet **auction** as a selling technique is "very creative" and shows that the home selling market is...

...than it has ever been and so it is forcing companies that require a large **volume** of sales **activity** to search out new ways to stimulate activity," Johnson said.

Stephen Kim, a building analyst with Solomon Smith Barney, said although the **auction** may bolster Kaufman & Broad's Southern California sales for the current fiscal year, which ends Nov. 30, he does not believe the timing is critical. He noted that the **auction** represents only 65 of 2,100 homes that Kaufman and Broad will sell in Southern he said.

David Dickey, a real estate consultant, said Internet **auctions** are "a fantastic idea" for lowering sales costs and ultimately keeping home prices down. But he cautioned that while **auctions** may be fine for opening sales on a new project, they may create a customer...

...said.

Bill Lo of Pacific Century said unless a property is truly distressed, an Internet **auction** is a bad idea that will alienate lenders as well as former buyers. "If I...

...guide to establishing fair market value," Lo said.

However, Moss said if bidders at an **auction** get a house at a lower price than buyers before them, the discount comes with...
...Jay Moss, regional president of Kaufman & Broad, in front of a projection of the internet **auction** site at the company's regional offices in Fontana.

Credit: The Press-Enterprise

Descriptors: ...Auctions;
Named Persons:

11/K/54 (Item 1 from file: 471)
New York Times Fulltext
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NYT Sequence Number: (USE FORMAT 7 FOR FULLTEXT)

Text:

-

...the New York Stock Exchange, the Securities and Exchange Commission today approved a request to **extend** the exchange's **hours** beyond the 4 P.M. **closing** bell.

The Big Board made the request last year in response to its steady loss
...

...plan to offer 24-hour trading ultimately.

But it is a clear departure from the **auction**-type trading that now exists on the floor of the exchange between 9:30 A...

...fees in the after-hours trading for the first six months of the new trading **activity**.

Big **Volume** Rise Predicted

Catherine Kinney, an executive vice president of the exchange, said that the waiver...

11/K/55 (Item 1 from file: 638)

Newsday/New York Newsday

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-

...successive weekends, Wood said. A bid sheet is posted, and buyers leave their name, phone **number** and **offer**. At the end of the second weekend, it's sold to the highest bidder, he...Zigman said. Indicate advantages you can offer, such as whether you can give the seller **extra time** to **close**, she said.

Therese Farrington was up against at least one other offer for the New ...

...willing to spend and stick to it, Muratore said. Don't get caught in a **bidding** war that makes you spend more than you want.

Don't widen your search unless...

980515

11/K/56 (Item 1 from file: 47)

Gale Group Magazine DB(TM)

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...time: 40 minutes). The sound is very clear and detailed, from a close perspective. It **offers** an admirable **level** of presence, great dynamic range, and good balance; but it is a little dry and...a richness of string sound that expands gratefully to fill the listening area. Pierre Nerini **offers** violin playing every bit as assured as the highly touted Menuhin solo for Irving--I...ahead, then pausing for a plunge into harmony, then lurching ahead to the next chordal **stop**. This process sets up **extended** chords as a kind of question and then answers them with shorter bursts, some that...

20031101

? ts11/7/53

11/7/53 (Item 1 from file: 635)

Business Dateline(R)

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2110603 62466746

Homes to be auctioned online

Berkman, Leslie

Press - Enterprise p E01

Oct 12, 2000

Word Count: 1,285

Dateline: Riverside California

Text:

Builders often have trouble selling the last few homes in a new subdivision, even in today's robust real estate market. With few homes for potential buyers to choose from, they have difficulty attracting foot traffic, while their costs of marketing, maintaining sales staffs and carrying construction loans drag on.

So what does a builder do with 65 leftover houses scattered in Hemet, Loma Linda, Riverside, Chino, Chino Hills, Fontana, Perris, Victorville and Castaic?

Faced with this predicament, Kaufman & Broad, the state's largest home builder, plans to hold an **auction** over the Internet. It will be the first such electronic close-out **auction** held by an industry leader.

Within the home building industry, Kaufman & Broad's experiment with Internet **auctions** is praised by some as innovative and proof of business savvy. But others anticipate an angry reaction from buyers who

have closed home sales for prices that an **auction** may undercut.

On Oct 29, would-be buyers will be able to stake claim to a house with the click of a mouse. All the homes are ready for occupancy or under construction with completion expected by Nov. 30.

Real estate **auctions** were last popular in Southern California during the deep recession of the early 1990s when homes were put on the block sometimes in a desperate effort to satisfy creditors.

But this is something far different, said Jay L. Moss, president and regional general manager for Kaufman & Broad of Southern California.

"This is far from a fire sale," Moss said. "I view it as a positive marketing approach."

Last July, Moss said, the company used an Internet **auction** for 10 single family homes and nine lots that comprised the first phase of a Coachella Valley subdivision called Bermuda Dunes.

Moss said the success of that **auction** and a traditional vocal **auction** of homes in Sacramento a year earlier encouraged the home builder to try the computerized **auction** process in the Inland Empire on a much larger scale, this time to close sales in a number of projects all at once.

Although Kaufman & Broad insists that the properties it is **auctioning** are not depressed, bidders are expected to be attracted to the **auction** with the hope of landing a deal.

"I think everyone is looking for a bargain," said Holly Burgin, vice president of sales for HomesDirect.com, the Pasadena-based company that will be conducting the **auction**.

In response, she said, "We try to make sure the opening bids are at a discount." Minimum opening bids posted on the HomesDirect.com Web site range from \$95,000 for a three-bedroom home in Victorville to \$339,000 for a five-bedroom house in Chino.

As an example of the discounting, Burgin said a four bedroom house in Hemet that was previously listed for \$189,000 will have a minimum asking price of \$170,000 at the **auction**.

Because of the cost savings that an **auction** generates by speeding up sales, Moss said, Kaufman & Broad can sell the houses below list price and still make money. But he also said it is possible that some homes may even sell at above the original sales prices.

Moss and Burgin said while would-be home buyers can learn details about the Internet **auction** on the Kaufman & Broad and HomesDirect.com Web sites, participants are encouraged to visit the

subdivisions in person, where they can obtain **auction** registration cards.

It is necessary to be registered and financially qualified by a mortgage lender before the **auction**, according to the **auction** officials. And a pre-**auction** class will be held where registrants can practice **bidding**.

On **auction** day, bidders can place their bids via the Internet from home or in person at the **auction** site in the Hilton Ontario Airport Hotel. **Bidding** starts at 2 p.m.

Charles Plott, a professor of economics at CalTech and developer of the **auction** software that Kaufman & Broad is using, said the software is designed to allow a builder to get the highest price possible from the **bidding** while giving bidders the best chance to buy the house they want most at an affordable price.

What makes this work, Plott said, is a system in which all of the houses in the **auction** are available for **bidding** simultaneously. The top bids for each home appear on the computer screen, allowing a bidder who is priced out of the **bidding** on his or her favorite house to immediately start **bidding** on an alternative house.

The **auction** on all the homes starts and **stops** at once, with the **bidding time extended** three minutes after each fresh bid. Burgin said she expects that the 65 homes will be auctioned in about two hours.

Compared to an oral **auction**, Burgin said, Internet **bidding** is "leisurely." At an oral **auction**, she observed, houses are generally sold one after the other, with each sale completed in a minute. If someone is outbid for the house he wants most, he cannot go back and bid on other homes that were previously sold.

Steve Johnson of The Meyers Group, a real estate consulting firm, said Kaufman & Broad's use of an Internet **auction** as a selling technique is "very creative" and shows that the home selling market is softer than some might think.

While home building is falling behind population growth in Southern California, he said, many young would-be home buyers seem more interested in spending their money on electronic toys and SUVs than houses.

At the same time, Johnson noted, home building is becoming dominated by public companies like Kaufman & Broad who must struggle to keep boosting sales and revenue to satisfy investors.

"I think the industry is probably more competitive today than it has ever been and so it is forcing companies that require a large **volume** of sales **activity** to search out new ways to stimulate activity," Johnson said.

Stephen Kim, a building analyst with Solomon Smith Barney, said although the **auction** may bolster Kaufman & Broad's Southern California sales for the current fiscal year, which ends Nov. 30, he does not believe the timing is critical. He noted that the **auction** represents only 65 of 2,100 homes that Kaufman and Broad will sell in Southern California this year.

Kim said Kaufman & Broad has been among the most aggressive builders in using the Internet and is trying to discover the best applications. "I think they are still trying to learn about it and analyze the results," he said.

David Dickey, a real estate consultant, said Internet **auctions** are "a fantastic idea" for lowering sales costs and ultimately keeping home prices down. But he cautioned that while **auctions** may be fine for opening sales on a new project, they may create a customer relations problem later in the sales cycle.

It is likely that existing homeowners in a project will object if the homes they bought at full price are suddenly sold at a discount. "You have a certain responsibility for people who bought in the earlier phases," Dickey said.

Bill Lo of Pacific Century said unless a property is truly distressed, an Internet **auction** is a bad idea that will alienate lenders as well as former buyers. "If I were a lender to the buyer, I would be concerned the appraisal doesn't mean anything because the Internet is the new guide to establishing fair market value," Lo said.

However, Moss said if bidders at an **auction** get a house at a lower price than buyers before them, the discount comes with less of a choice. First comers to a project may have paid more, he said, but they also got the exact house and location they wanted.

Caption: Paul Alvarez; The Press-Enterprise; Jay Moss, regional president of Kaufman & Broad, in front of a projection of the internet **auction** site at the company's regional offices in Fontana.

Credit: The Press-Enterprise

? ts11/7/13

11/7/13 (Item 1 from file: 148)

Gale Group Trade & Industry DB

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13699696 **Supplier Number:** 75916268 (THIS IS THE FULL TEXT)

Army Reverse Auctions: An E-Commerce Acquisition Tool.(electronic commerce)

ELGART, EDWARD G.

Public Manager , 30 , 1 , 13

Spring , 2001

Text:

How the USA Army is using electronic **auction** tools and techniques to allow users to save time and money and to get goods and services into the hands of front-line soldiers faster than ever.

The Army contracting community's number one objective is to get goods and services into the hands of the soldier faster. We also want to pay the best price and get quality and value in return. The advent of reverse **auction** technology coupled with less restrictive regulatory guidelines enabled the Army and other executive departments to accomplish that goal efficiently and effectively using modern e-commerce business-to-business tools.

Background

Prior to 1997, Defense agencies were prohibited by the Federal Acquisition Regulation (FAR) from using **auctions** as a method of procuring goods and services. Then, federal acquisition reform resulted in a rewrite of FAR Part 15 and the elimination of that prohibition. At the time, this major rule change went practically unnoticed by the procurement community because there was no easy way to conduct an **auction** without it being live. Technology, specifically the Internet, changed that.

Internet Influence

After the introduction of commercial, nontechnical, user-friendly browsers, Internet usage became commonplace. Individual users were hooking up at work and at home, and electronic markets developed. As software matured, computers became more powerful, leading to networked capabilities that enhanced communications and improved efficiency. One enhancement that grew out of this rapid evolution was a rudimentary **auction** capability. In the commercial sector, sites set up electronic **auctions** to sell consumer goods to the highest bidder on behalf of

themselves or for individuals who wanted to use their systems for a fee.

Fueled by consumer interest in this new "toy," an ever-increasing number of websites appeared using **auction** techniques. This increased competition pushed technology improvements at a rapid pace. As a result, users became more sophisticated in using **auction** tools that kept pace with the improvements being promulgated by the continually improving browsers and **auction** websites. **Auction** sites today make it easy to find product lines and products that interest the consumer and allow for quick linkage to placing a bid. They also let users know if they are winning or losing through on-line view and e-mail notifications, and even let bids grow automatically based on beating a competitor's offer up to a pre-designated amount. Terms and conditions are clearly spelled out. Registration for these sites is simple. Competition and consumer interest continues to fuel software improvements.

Industry Interest

As consumer **auction** sites continued to evolve, industry groups looked at the capabilities of using this technique to buy and sell products and capabilities to one another. A natural avenue for this approach would be a commodity such as steel for aircraft manufacturers, wood for the paper industry, and component systems for automobiles. In some cases, corporations paid to develop capabilities to perform this function in-house, but more often, they used one of the third party companies that appeared in the marketplace. The advantage to utilizing third parties is apparent; industry segments remain within their core competencies, such as manufacturing, while relying on others' expertise in providing auction services. This also allowed for competing **auction** software vendors to continue to improve their products and services to attract new clients and retain existing ones. **Auction** companies received fees as a percentage of sales, a fixed fee per transaction, or a license for a particular time or type of usage. Industry usage of this tool garnered media attention, which in turn garnered the attention of leaders in the public sector.

There were two major variations of this technique, forward **auctions** and reverse **auctions**. In a forward **auction**, the seller **auctions** off his products or services, and the bids escalate until there is a winner who normally is willing to pay the highest price. In a reverse **auction**, the opposite occurs. The buyer describes what he is interested in buying and the sellers bid downward to capture the business. Dr. Kenneth J. Oscar, then deputy assistant secretary of the Army for procurement, was one of the first to recognize the potential for government savings and asked three Army activities to consider piloting reverse **auction** techniques. One of those three, the Army's Communications-Electronics Command (CECOM), under the leadership of Major General Robert L. Nabors, quickly took the challenge.

The CECOM Approach

In an effort to understand and leverage e-commerce tools for Army procurement, as the CECOM principal assistant responsible for contracting (PARC), I attended a seminar at the Massachusetts Institute of Technology (MIT) Media Labs on doing business in an Internet environment. A number of the presentations dealt with the use of reverse **auctions** in the commercial and consumer product field. When tasked by the Army to set up a pilot, I chartered a team, headed by Matt Meinert, a CECOM contracting

officer, to interface with MIT officials. This team was established to seek out capabilities that could be rapidly assimilated by the Army into its existing business processes, be user-friendly to both government buyers and industry sellers, and be inexpensive to use in order to maximize savings.

The team's research indicated two possible approaches: use a vendor to set up each **auction** and run the process for a by-event fee; or license a commercial software product that could be used by the Army contracting community and that would benefit from the technology improvements that result from the software developer's continuous competition for additional commercial users of its product.

The Army Decision

The Army chose the licensing approach. The rationale was simple. This approach provided a capability on the desktop of every contracting officer to run reverse **auctions**. It also allowed for reverse **auctions** to be run for multitudes of smaller dollar value items, which would not be possible if their savings were offset by a large per transaction fee. This approach maintained the integrity of the current Army business practice, which is to have government agents, normally warranted contracting officers, be responsible for assuring fair and reasonable prices for Army procurements.

Army First

The reverse **auction** process software that was found for the pilot was actually two distinct programs that were merged together to offer greater capabilities than just allowing companies to offer bids. These additional capabilities helped convince CECOM that this was the tool to use. On May 17, 2000, CECOM ran the Army's first reverse **auction**. Less than an hour later, the contracting officers had purchased a secure fax machine that saved the Army 20 percent over the General Services Administration (GSA) schedule price. Two days later, they did it again. With Dr. Oscar present, CECOM saved 50 percent on the purchase of notebook computers.

The Auction Tool

The software actually supplies three tools in one, providing users with more options. It will search the web for products as defined by requirement specifications (spidering) or allow a user to specify a product for procurement. Buyers can then buy directly from an electronic catalogue, an ongoing forward **auction**, or by setting up and running a reverse **auction**.

Spidering

The first aspect of the **auction** tool to be utilized is the web spider, a specialized search engine that can be user configured. The user can specify a particular product or the tool can choose a multitude of products fitting a description. Built-in generic descriptions of common items are provided, including office supplies, automation, and information systems. These pre-set profiles make it easy for even novices to find out what products are available to meet their needs. If a profile doesn't fit, one may customize any or all features. The software will prompt a series of questions until the product specifications are defined. The user then sends that information out onto the Web and receives lists of products and sources that meet the need, rank ordered by algorithms built into the software. If the user modifies the profile and spiders again, the ranking will change.

A key aspect of profile modification is that not only can key parameters be changed, but their weight value can be adjusted, too. Toggling a weighting bar from low to high for each feature's preferences does this. Checking a block that states "must have" can lock in a critical parameter. This creates an initial best value capability where prior to running an **auction**, certain tradeoffs among price, performance, and other attributes such as availability, warranty, and payment terms can occur.

Comparison and Catalogue Buying

After attributes are chosen and properly weighted, the spidering occurs. The items in rank order now appear on the screen. A buyer can choose up to three products at a time and do a side-by-side comparison of the features. Side-by-side comparisons could be for the same product from different vendors, or from similar products that meet the profile. If the quantities are small or, in the user's analysis, little benefit would be derived from establishing a reverse **auction**, the tool allows for the user to make a selection, based on the competition that has already occurred, and go directly to the catalogue site and buy now.

Forward

Auctions

Products and sources in the ranking may not all come from catalogues. In many instances, the tool identifies forward **auctions** that are currently available for placing bids. The user may find that the forward **auction**

item has the potential to be the best value to the government. In that case, by linking to the forward **auction** site, the user can determine if s/he wants to bid. In this instance, the government would compete against other buyers for the right to procure the auctioned item. If successful, there would be an obligation to buy.

Reverse Auctions

After performing the spidering and comparison functions, a buyer can choose to set up a reverse **auction** to procure the item. The software tool has a button hyperlink to the reverse **auction** set up. The buyer fills in information that informs potential bidders on the quantity, starting price, start and initial ending time of the **auction**, item description, and other key parameters. For commercial type items under FAR Part 12, no formal synopsis needs to be used, but some form of advance notification should take place to maximize participation. For military items, a synopsis in the Commerce Business Daily informs bidders where the **auction** site is and when it will commence.

Some **auctions** are for small businesses only or allow partial **quantities**. A **bid** decrement sets the rules for all bids subsequent to the first. Follow-on bids must drop at least as much as the specified decrement in order to be acceptable. Decrements should be reasonable based on the dollar range of the item. A \$5 decrement would be reasonable for a \$250 item, but too small for a \$10,000 item, where a \$100 decrement would keep that reverse **auction** moving. A bidder can set up a "maximum" automatic bid price using the proxy method and walk away from their computer. If the starting bid is \$800 and a bidder sets his proxy at \$500, the software will automatically lower a bidder's price by

the bid decrement amount every time another bidder is winning until the proxy number of \$500 is reached. There it will stay unless someone intervenes and changes the bid. Users may set a definite time for the reverse **auction** or they may let the closing time float based on continuing interest in **bidding** by using an automatic time extension.

This feature allows buyers to set a specific time extension triggered by bids occurring at specified intervals. When a five-minute interval is chosen for a 30-minute **auction**, any bid received after **minute 25 will automatically extend closing** by five **minutes**. This can continue to happen until no more bids are received. It is imperative that bidders know this feature is being used and what the interval is. Procedures pertaining to late bids still apply in government procurement.

The **Auction** Scenario

The Army's single face to industry host site only allows companies that are registered in the Central Contractor Registration System to compete in reverse **auctions**. When the **auction** is about to begin, each company has identified its interest and received an anonymous screen name. The first bid must be at the starting price or below. All bidders can see who is winning at any time and what that price is. They do not know the real names of the bidders. At the **auction's** conclusion, the contracting officer calls the winner and arranges for finalizing the contract. That can be as simple as a purchase card number or as complex as a bilateral agreement, depending on the type of item, dollar value, and other rules.

Services

There are some fixed price performance-based services that are conducive to reverse **auctions**. An example of a service of this type is to organize a conference or providing a training class. It is important for these services that acceptable performance is easily understood so that what constitutes completion is clear.

Military Unique Items

The **auction** tool is also easy to use for military unique items. Using Part 15 of the FAR as the basis for negotiation, items once synopsized can then be reverse auctioned. Items that are either specified or contain a national stock number can be placed up for bid. Bidders can be electronically linked to all technical data, specifications, terms and conditions, and other special provisions in advance of the **auction** date so that they can be knowledgeable about the product. Then they can provide their bids when the **auction** begins. CECOM's first military unique **auction** was for Patriot missile connectors. Historically, using invitation for bids, the unit price for similar quantities was \$1,080 each. At the end of 45 minutes, the reverse **auction** yielded a unit price of \$780, a \$400 savings for each connector.

Some Other **Auction** Capabilities

The Army tool is also available for other uses. Forward **auctions** can be used to sell off surplus supplies and recycled materials. Authorized Defense agencies responsible for disposing of government surplus items can use this tool to get the highest price possible. Dutch **auctions** can be used in the procurement of produce and other foodstuff with perishable shelf lives. The Army can list its

requirements and the bidder that provides the best delivery terms wins.

Economies of Scale

An Army activity wanting to multiply its buying power can enlist

other government activities in its **auction**. There is a great potential to leverage the marketplace for the best price for common items. For instance, if the first Wednesday in a month were "copy paper **auction** day," all activities requiring copy paper could pool their requirements and leverage the suppliers. The **auction** tool allows for multiple delivery sites, so that bidders would know where and how much to send to each location. This is similar to a corporation running a reverse **auction** to leverage the marketplace for its individual divisions.

Real Best Value

An exciting enhancement will be added shortly that will allow for real best value. The reverse **auction** weightings will be set as they are in the existing tool, but they will stay with the item throughout the **auction**. Bidders will not only bid on price, but on other value terms as well. For example, if pages-per-minute are important, an increase in the transmission of pages may offset a lower price and make that bidder the winner, or a better warranty or greater processor speed could be worth some additional cost as well. Using a lumber buy as an example, quality of the lumber could become a value-deciding factor. If you need it now, delivery time could be a key weight. The user determines what's important and the best value formula does the rest.

Results

As additional Army activities continue to find ways to use the **auction** tool, it also attracts interest from other military services. Officials at CECOM negotiated a license to allow for pilot use throughout the Department of Defense, and the Air Force and Marine Corps took advantage of that opportunity. Savings on items such as computers, dishwashers, lumber, and fax machines have yielded savings ranging from 10 percent to over 50 percent. One of the more interesting buys was for 100 caprines, more commonly known as goats (livestock), which yielded savings of 23 percent.

Summary

The techniques of business-to-business electronic commerce have as much applicability in government procurement as they do in the commercial sector. The Army has licensed an easy to use tool, to improve its buying capability. This is especially true for known production items that are military unique or commercial in nature and for some limited performance-based services. The Army has shared its success with other military services that have also benefited from these techniques. As software continues to evolve and users become more attuned to its capabilities, there is great potential for leveraging the marketplace and utilizing best value techniques. Superior support to our soldiers is what it's all about. The soldier is our bottom line.

Edward G. Elgart is in his second appointment as acting deputy assistant secretary of the Army (procurement). He has been the director of the Army's CECOM Acquisition Center since he entered the senior executive

service in June 1989.

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Business-to-business online auctions: key issues for purchasing process improvement

Abstract:

This paper describes the process for conducting downward price business to business online **auctions** over the Internet for direct material purchasing and presents common issues, process improvement opportunities, and the interpretation of **auction** results.

Text:

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Introduction

The traditional purchasing process leaves much to be desired, as it is neither efficient nor effective. For most large manufacturing companies, purchased materials and services can represent 55-75 per cent of their cost of goods sold (Monczka et al., 1998). As a result, many companies have adopted strategic supply chain management practices that may include supplier development activities whose objective is to better align operating practices between buyer and seller (Lamming, 1996). If executed well, buyer and seller will share savings and enjoy improved quality and delivery performance, as well as opportunities to expand the relationship into other products and value-added services. However, supplier development

requires a financial investment whose return can be difficult to quantify, and many executives in traditional manufacturing businesses believe that it is the responsibility of the supplier to improve without assistance from the buyer. In addition, it takes time to re-orient a business from

traditional purchasing to effective supply chain management (Lamming, 1996). Such conditions favor the eventual failure of supply chain management initiatives and regression to traditional purchasing practices (Handfield et al., 2000).

Large publicly held businesses that do not enjoy significant annual top line growth rely heavily upon cost reduction to achieve financial goals. The task of senior management then is to find ways of achieving cost reduction at an accelerated rate. Since purchased materials and services constitute such a large portion of the cost of goods sold, it is logical that they would apply continuous pressure to suppliers. Indeed, it is well known that suppliers are often forced to comply with a buyer's cost reduction target in order to continue receiving orders. It works, it's quick, it gets the job done, but nobody likes it and it does not generate an understanding of the root causes of poor performance. So what are the alternatives? How can a business not fully dedicated to supply chain management and supplier development (Nelson et al., 1998; Bounds et al., 1996; Bounds, 1996) reduce the cost of purchased materials at a faster rate than is normally attainable by traditional purchasing methods?

For the last few decades, the purchasing process for direct material in most US companies has followed a well-worn traditional path (Monczka et al., 1998). The total process cycle time typically ranges from weeks to several months depending upon the purchasing control system, product type, responsiveness of individual buyers, supplier location, electronic communication system, etc. This represents the essence of traditional competitive **bidding** and order fulfillment process.

The purchasing process for custom components tends to be elaborate, time-consuming, and transaction-intensive, so it is not unusual for senior executives to sponsor teams to undertake efforts to study and implement improvements. Certain activities can be automated using computer systems to reduce the number of people engaged in the process, from order taking to distributing information. They may also negotiate with suppliers to establish long-term agreements for specific parts. In addition, buyers may seek to reduce the number of suppliers and concentrate purchase volumes with fewer, more capable suppliers. Supplier rationalization can be an emotional event, as individual buyers tend to favor certain suppliers and may impose subtle barriers to rationalization.

One of the most time-intensive activities in the purchasing process is price negotiation, particularly for large volumes of spend such as in a multi-year long-term agreement. An agreement over quality and delivery performance targets is often easier to achieve since buyer and seller may be better aligned toward these goals. In the absence of threats, it can take months to reach agreement over the price, especially if production

volumes are known to be erratic. Moreover, the supplier is generally left with the task of figuring out how best to achieve the savings, which can be a daunting task for small and mid-sized suppliers who often view themselves as having very limited resources. In recent years, business-to-business **auctions** over the Internet have emerged as one option to reduce purchasing costs.

Business-to-business online **auctions**

Business-to-business online **auctions** are downward pricing, or reverse **auctions** performed in real time over the Internet or through a private network (Vigoroso, 1999; Baatz, 1999). An intermediary accepts bids on behalf of a corporate purchaser for goods or services provided by current or new suppliers using proprietary software. The model for business-to-business online **auctions** of industrial parts, raw materials, and commodities was pioneered by a company called FreeMarkets Inc. in 1995. The business grew slowly for two years, then grew at an appreciably higher rate starting in 1998 as a result of major contracts with General Motors and United Technologies Corp., culminating in an initial public offering in December 1999 that raised \$172.8 million in capital (FreeMarkets, 1999; Hennessey, 1999).

Companies that compete in business-to-business online **auction** marketplace include Ariba, CommerceOne, EDS/AT Kearney, FreeMarkets Inc., and VerticalNet, (Web Sites, 2000). The service that these companies provide is called "market making", while the company itself is often referred to as the "market maker" because they match buyers and sellers in electronic marketplaces. These intermediaries create well-defined rules of engagement for online **auctions** and also provide related value-added services such as market analysis, consultation, and bid analysis. The core skills of intermediaries are information technology, commodity management and an understanding of point-to-point buyer-seller interactions. Companies may specialize in business-to-business online **auctions** for indirect materials such as shop consumables, direct material such as custom-designed components, or commodities such as coal, raw materials, temporary staffing, computers, office supplies, transportation, etc.

Many large US corporations, including AlliedSignal, Caterpillar, Emerson Electric, Frigidaire, General Motors, Owens-Corning, PepsiCo, Proctor & Gamble, Quaker Oats, United Technologies Corporation, Westinghouse, and Whirlpool, as well as the Commonwealth of Pennsylvania, have utilized online **auctions** to procure goods and services. Major corporations in the EU are also discovering this purchasing method and many will surely give it a try. The potential market is vast and includes the Global 1000 corporations. Why? Because online **auctions** can achieve gross savings ranging from 5-40 per cent (Tully, 2000), with an average of 15-20 per cent gross savings being more typical (Cohn, 2000). This is a significant reduction in the cost of purchased material, which in turn directly reduces the cost of goods sold. For a business earning 20 per cent gross margin, a US\$1 reduction in costs is the same as increasing the top line sales by US\$5. Many businesses have anemic top line growth or are not able to raise prices in competitive markets. This makes cost reduction a much more attractive alternative.

Online **auctions** work best where there are many suppliers with available capacity and the buyer has leverage or otherwise dominates the relationship. It is particularly effective for custom-designed machined parts, stampings, injection molded parts, and electronic components where gross savings of 15-20 per cent are typically achieved. But even 2 per cent savings can be significant if the spend is large enough. This is what happens in commodity markets with only a handful of producers. An electric generating plant that saves 2 per cent in the cost of coal over a one year period would appear to be quite successful at managing input costs. Companies that spend a large amount of money on ground transportation to distribute goods would do well to save 4 per cent. So how does it work?

The business-to-business online **auction** process

Figure 1 shows a typical online **auction** process, from project start to bid day. The first four steps are classical commodity management activities. Most buyers are fully capable of performing this work with themselves. The intermediary adds value by:

- maintaining process discipline to ensure that key milestones are achieved;
- creating a thorough and accurate request for quote; and
- providing expertise in analyzing commodities and markets.

The RFQ is much better than what the buyer alone would typically prepare, thus enabling suppliers to calculate their prices more accurately.

The process begins with the formation of a cross-functional team whose responsibility is to analyze a commodity such as custom-designed machined components. The team consists of representatives from the buying organization as well as the market maker. They will gather many different types of data from existing sources to establish the current condition of the commodity, including:

- quality performance;
- delivery performance;
- spend data from accounts payable;
- production schedule;
- commodity codes;
- business impact;
- supply/market complexity;
- constraints;

- leverage opportunities.

This data will be used to help formulate sourcing strategies appropriate to the commodity. Spend data is analyzed using Pareto charts which will result in the formation of sourcing groups such as small, medium, and large machined parts. Blueprints and specifications are gathered and analyzed in order to create smaller sub-groups that contain parts with similar characteristics such as size range or configuration (i.e. flanges, pipe fittings, bushings, etc.). It is preferable if the sub-groups are categorized by the primary manufacturing processes such as mill, turn/mill, or turn/mill/drill. The sub-groups are then categorized into smaller groups called "lots", typically 10-100 part numbers in size and comprising an annual spend of US\$100,000-1,000,000. The team will normally prepare 10-20 lots for

bidding. It is critical that lotting be performed very well as it helps suppliers recognize which parts fit their core competencies and creates the foundation for successful online **auctions.**

The team then identifies suppliers that are capable of performing the work and prepares a bid list. The bid list typically consists of a mix of suppliers that currently do business with the buyer as well as new suppliers, and may contain up to 50 or 60 suppliers. Astute teams will be sure to include suppliers that practice lean production. Key team members will visit new suppliers to evaluate their management, quality system, delivery performance, capacity, production system, equipment, facilities, etc.

A comprehensive request for quote is then sent to suppliers, which includes blueprints, specifications, and other relevant documentation, contract terms and conditions, performance goals, service requirements, freight

information, as well as instructions, bid date and time, etc. Every supplier receives exactly the same information and the same requirements at the same time. The field is thus leveled, which will result in a better comparison of prices that are posted on bid day. Suppliers are given 15-45 days to evaluate the request for quote and develop pricing, depending upon the number and complexity of parts. Missing technical data will slow down the process and likely result in poor **auction** results. It is at this point that some suppliers decline further participation. The reasons vary, but are typically due to other commitments that they must honor or the parts do not fit their core competency. At this point, the bid list may be down to 25-30 interested suppliers.

The team communicates with suppliers throughout the blueprint review process to ensure that parts were lotted correctly. Low volume lots or incorrectly lotted parts may be put aside and bid off-line at a later date. The team will also train the supplier in the software used to manage the online **auction** event, **auction** rules, tactics to avoid, etc.

As bid day approaches, suppliers work to finalize part and lot pricing, and determine the price at which they will cease **bidding**. Suppliers should refrain from revising their final offer downward during the online **auction** since irrational decisions are not likely to serve the supplier's interests. The bid list may now be down to 20-25 suppliers.

The suppliers are instructed to log onto the market maker's network at a certain day and time. **Bidding** commences starting with lot one and continuing until all lots have been bid upon. **Bidding** for each lot ends at a specific time of day unless the **level of activity** near the end of the **auction** justifies **extending** the **closing time**. If there are more than ten lots, a second round of **bidding** will take place a day or two later. The actual number of suppliers that participate on bid day typically ranges from 10-20. It is characteristic that the supplier with the lowest bid will think that they have won the lot. But this is not necessarily true, as the buyer is not obligated to accept a bid, and many other factors affect the final award decision.

Interpreting **auction** results

A record of bids is shown in Figure 2 for a selected group, or "lot", of parts. The "current price", also known as "historic" price, is the most recent price paid by the buyer for the parts contained within the lot. The "desired price", also known as "reserve" price, is the price below which the lot must fall in order for the buyer to consider it worthwhile to source the parts to another supplier. The difference between current and desired price can thus represent switching costs. The **auction** is conducted in real-time, and each supplier witnesses anonymous bids as they are placed by competitors. The price transparency and dynamic **bidding** usually results in dramatically lower pricing than the buyer is able to achieve by traditional request for quote process. Suppliers judged to be competitive are shown in the shaded oval. Note that the market price is approximately US\$400,000. Supplier quality performance, delivery performance, or other factors may preclude the lowest bidder from winning the lot. Post-**auction** bid analysis and follow-up supplier visits are important parts of the total process.

It is important to note that the suppliers see different information than the buyer does during the online **auction**. Specifically, the suppliers do not know the current price, but they are aware of the desired price and recognize that in order to be competitive their bids must be at or below this price. In addition, the buyer may elect to witness the bids as they come in from suppliers either anonymously, or by their exact name. The suppliers, in contrast, do not know the names of the other bidders.

Figure 2 is an example of a successful online **auction** in which the price of the lot fell well below the buyer's desired price. Bid records can take on a variety of shapes including less aggressive downward trends which fail to meet the desired price. In this case, the lot of material is unlikely to be awarded unless the buyer has an overriding interest to source parts in families despite having achieved a small amount of savings.

The bid record may trend upward as well, though the intermediary typically builds rules into the software so that it will not accept bids greater than 5-10 per cent of the buyer's current price. The lowest bid represents the maximum gross savings achievable. The actual savings that will be realized are usually 10-50 per cent less due to various losses incurred during the detailed bid analysis process, as described below.

Upon completion of the **auction**, the buyer will evaluate the bid data. The buyer usually requests additional detailed information from the market maker, including cost breakdown for certain parts, updated quality and delivery performance information, changes in supplier capacity, changes in management, etc. Evaluation of the bids and supplemental data can take several weeks and should include other functions such as quality, materials management, manufacturing engineering, etc. It is the job of the cross-functional team engaged in bid analysis to ensure that these considerations are taken into account. It is common for teams to establish criteria and associated weighting factors, which vary by commodity, to aid in the analysis of large amounts of data.

The lag in time between completion of the bid event and awarding the business can result in non-value added re-work. For example, a supplier may have won additional business from other sources and may not be able to perform the work that the buyer would like to award them. Some suppliers decide that they cannot or will not honor their bids, preferring instead to risk the loss of business or develop other customers in the same or different markets. Thus, the buyer may have to re-evaluate the data and award the business to the next best candidate. If favorable conditions cannot be achieved, then some lots may not be awarded as the buyer is under no obligation to accept a bid. Instead, material will be procured from an incumbent supplier using traditional "off-line" purchasing processes.

Work is awarded as complete lots, "winner takes all". However, the buyer must make the decision whether to allow existing purchase orders to run out or cancel them. Either way there is a phase-in period that the buyer and winning supplier must agree upon. The phase-in period can take 12-18 months, which is significant if the long-term agreement is for three years. This can have an unfavorable financial impact upon the supplier in the first year or two of the long-term agreement because they typically price the lot assuming they would be manufacturing the entire production volume. Suppliers should be very cautious regarding this point.

The award agreement contains the pricing information, cost and delivery performance targets, and other relevant terms and conditions. The requisite signatures are obtained from the buyer and supplier, which now enable the supplier to begin work. If the supplier has made the parts before or has stock on hand, then they can immediately ship parts under the new pricing. The ability to immediately reduce prices gives an advantage to incumbent suppliers, and allows the buyer to avoid costs associated with moving parts from one supplier to another. It should be noted that a pattern of awarding work to incumbent suppliers would discourage other suppliers from participating in downward price online **auctions**.

If the part is new to the supplier, then they must first obtain updated prints and specification from the buyer, order raw material, design the process, fabricate tooling, etc., which can take two to four months. The buyer will not begin to accrue savings until it receives parts from the supplier. In addition, the total expected savings will not be realized until the buyer receives the total annualized quantity of parts, which can take more or less than one year depending upon market demand.

Figure 3 shows cycle time for the entire online **auction** process, from project start to the accrual of the total amount of savings, for a sourcing group or sub-group. The sourcing group or sub-group may, in turn, consist of 10-20 lots. The process will be repeated until all sourcing groups have been bid. The total effort can take several years depending upon the number of parts, purchased volume, or rate at which parts are transferred to the winning supplier. Again, this example represents the situation of a buyer whose spend is highly fragmented among numerous suppliers and where components have been randomly sourced in the past. It is apparent in this example that the time it takes to execute the entire online **auction** process can be similar to the time it takes to perform face-to-face negotiations for certain types of components. However, there are two substantial differences that are of great importance to the buyer and supplier. Firstly, prices are negotiated much more efficiently online, taking only one to two hours per lot. Secondly, parts are sourced in families, either by similarity in configuration or by similarity in process sequence, thus enabling the producer to minimize waste in production (Womack and Jones, 1996). It should be noted that the request for proposal cycle time is reduced by 50-80 per cent for less complex commodities.

Buyer and seller benefits

Once again, assume that the commodity being purchased is custom-designed machined components. The buyer benefits in several ways. Firstly, the overall process is very disciplined, unlike what typically happens in tactical procurement. Purchasing organizations tend to be results-focused and will place orders with whichever supplier can meet aggressive delivery dates without compromising quality. Over time, a buying organization will likely be conducting business with many more suppliers than are actually

needed, and similar types of parts will be scattered across numerous suppliers. Fragmented purchasing volumes virtually assure that the buying organization is paying a higher unit cost. In addition, the total costs to the business are also likely to be higher than necessary due to qualification and maintenance of a large number of suppliers, late parts from low volume suppliers, recurring defects, overproduction, etc.

The online

auction process often includes the participation of manufacturing engineers from the buyer's organization to evaluate

blueprints and categorize parts according to similar product features or, preferably, process flow. Thus, candidate suppliers will bid on consolidated volumes of products that have similar characteristics, which should help improve cost, delivery, and quality performance – especially if the supplier practices lean production (Ohno, 1988; Robinson, 1990).

Secondly, the involvement of an intermediary – FreeMarkets Inc., for example – brings valuable experience and facilitates adherence to project milestones. Thirdly, the process requires the buyer to evaluate other capable suppliers that they might not otherwise consider under regular business conditions. Fourthly, the process compresses price negotiations from months to hours, thus saving considerable time and effort and reducing the likelihood of significant changes in business conditions that might affect price. Fifthly, the process leads to a market price. This information is unknown to businesses that are not skilled in cost analysis. In other words, if a procurement organization is skilled in cost analysis, as are some automotive and electronics manufacturers, then the value of online **auctions** decrease significantly. Sixthly, the buyer receives the entire savings upfront, rather than incremental year-over-year reductions.

Suppliers also benefit from online **auctions**. Firstly, leveling the field removes some of the advantage enjoyed by incumbent suppliers. Suppliers that bid have a fair opportunity to win the work. Secondly, an expanded market comes to seller. That is to say, qualified suppliers may be invited to participate in future online **auctions** sponsored by their current customer, or they may have the opportunity to win business from new customers. Thus, suppliers can grow sales or diversify their customer base, which can reduce expenses related to sales and marketing. They also gain access to large customers and at higher levels of decision-making authority than may be otherwise possible.

Thirdly, the suppliers that participate in online **auctions** are able to see the market price and validate their competitiveness. Thus, suppliers that dislike online **auctions** should be encouraged to participate, even if they place only one high bid, because they can obtain valuable competitive information. Fourthly, winning suppliers are awarded work that is organized in part or process families. Fifthly, work that is obtained in part or process families enables the supplier to focus on its core competencies. Sixthly, the online **auction** process usually results in a multi-year long-term agreement. This type of contract is very useful in ensuring the availability of capital from lending institutions, and is especially important for small businesses.

Issues to manage

The range of reactions by stakeholders indicates that management will have to develop plans to respond to key issues. Chief among them is the concerns of individual buyers whose skills have been significantly reduced in value as seen by management. Downward price online **auctions** replace the core skill of negotiation possessed by human workers. Surely procurement personnel will be needed in businesses that employ online **auctions**,

but the primary role and desired competencies are likely to change. Over time, there will likely be a shift from many people employed in tactical buying to fewer people engaged in strategic supply management.

The new skill set might include supplier relationship management, commodity management, and supplier development. The new role will likely include the following competencies: detailed understanding of production systems (Ohno, 1988; Womack et al., 1990), labor markets, machine tools, environmental impact of packaging and processes, determining cost drivers, estimating total cost, facilitating supplier teams in process improvement activities, etc.

The online **auction** process may temporarily increase the number of suppliers, since similarly configured parts may have been scattered across a large number of producers. Thus it would be difficult to eliminate a supplier directly from a single online **auction**, as they probably manufacture other types of parts for the buyer. This would run counter to goals to rationalize the supply base, but most likely only temporarily (i.e. one to two years). However, it is possible that the supply base could remain large if the discipline to achieve this goal is compromised by events such as employee or management turnover.

The buyer must be prepared to support expenses associated with switching from one supplier to another, including travel, qualification, tooling, training, first article inspection, aligning information systems, etc. Materials management personnel will also likely get involved to help determine the requirement, if any, for product delivery overlap to ensure adequate supply during transition from one supplier to another. This too can have an unfavorable impact upon purchased material budgets, inventory turns, etc., and temporarily increase the cost of goods sold.

The buyer should prepare its suppliers for the upcoming change in business practices. It would be preferable if the communications were done in person, at the supplier's location, and supported by "frequently asked questions" posted on the buyer's Web site. The buyer should ensure that suppliers understand the process and that its goal is to level the field in preparation for online **auctions**, being careful to note that only qualified suppliers, those with exemplary delivery and quality performance, will be invited to bid. The buyer may also need to include a list of definitions to clarify the meaning of "partnership" and other overused terms.

The buyer must also gain an understanding of the supplier's cost structure to ensure that the prices quoted are actually achievable. It would be unwise for a supplier to perform work at a loss. Further, the buyer would not be interested in negotiating price increases due to financial losses sustained by the supplier. That would defeat the purpose of online **auctions**. Thus, suppliers must approach the **bidding** process carefully, determine their final offer in advance of bid day, and not be tempted to place bids lower than their pre-determined final offer. One goal of online **auctions**, for both buyer and seller, should be to ensure defect-free outcomes. This can be best achieved by having a thorough

understanding of the process and ensuring disciplined execution in all phases.

Unresolved questions

Online **auctions** of custom-designed industrial components are a new phenomenon brought about in large part by the convergence of key elements of information technology: innovative software, affordable hardware, high-speed global communications infrastructure, etc. The process appears to be very successful as many large companies are adopting it as a key purchasing practice. Yet there are many questions that remain unanswered. What follows are seven key questions, as well as the questions that they, in turn, create:

(1) Where does the price reduction come from? Is it from cost or margins? Or, are online **auctions** simply an efficient means for shopping for lower overhead cost structures? Does lower overhead result in relationships with smaller businesses that have less capability to meet ever increasing customer service demands? Do suppliers really know how to meet the cost targets if they are batch-and-queue producers, or must they employ the philosophy and practice of lean production to successfully reduce their costs? Can they become lean producers on their own, or will they need help from their customer or a third party? Is the supply chain aligned and ready to participate in supporting the supplier's efforts to reduce costs? Does the supplier have agreements with its suppliers to reduce the cost of raw materials and services? If not, how can they obtain agreements given the fact that they have little or no leverage to induce participation?

(2) Are online **auctions** a one-time event, or will they be repeated? Suppliers participate with the expectation that if they win business, they are awarded a long-term agreement that places them in a favorable position for renewal of the agreement when it expires. But will buyers that rely on cost reduction to meet financial goals stop seeking cost reduction at the end of the long-term agreement? It is not likely. So will the work be put up for bid again? Will it be re-bid during the term of contract, thus effectively breaking the contract? Then what good is a contract? And what will the impact upon trust be, either implicit or explicit, in the buyer-supplier relationship (Kim et al., 1999)? Does trust in business relationships matter anymore? If it does, then does re-**bidding** the work make sense? Will buyers and sellers revert to traditional, off-line, human negotiation processes?

(3) What are the implications for lean production? Can suppliers fulfill contractual terms by manufacturing goods using common high-cost batch-and-queue production methods? Will online **auctions** propel suppliers to adopt lean production, since it is the only viable means of systematically reducing product costs? Lean production cannot properly exist without target or kaizen costing (Monden, 1995). Will buyers see the error of their past ways and earnestly implement target or kaizen costing methodology in the design of new products? Or will products continue to be designed to achieve technical performance at the expense of cost, delivery,

and quality performance?

(4) Do online **auctions** portend a reduction or elimination of the in-house buying function? Will production parts sourcing be outsourced to online **auction** companies, just as non-production products and services have been outsourced to category specialists skilled in electronic order management? Will buyers become supplier relationship or supplier development managers? What new skills will buying personnel need to learn? How many people will be needed to resolve delivery and quality issues in businesses unaccustomed to identifying and eliminating the root cause of non-conformances? Do online

auctions help reduce waste in operations (Womack and Jones, 1996)? If they do not reduce waste, then why do them?

(5) Is it logical to engage in both supply chain management and online **auctions**? Do supply chain management and supplier development activities conflict with online **auctions**? Can they be done simultaneously by the same organization, without creating obvious or unresolvable conflicts? In what ways can the buyer or supplier encourage the cooperation of lower tier suppliers to support and sustain the results of online **auction** events? What is the incentive for lower-tier suppliers to participate? Will sub-tier suppliers consolidate and resist efforts to reduce prices?

(6) Are online **auctions** a truly new method of procurement, or do they simply facilitate traditional heavy-handed procurement methods? Are online **auctions** simply the newest way to obtain price reductions from suppliers? Will buyers be motivated to gain a competency in cost analysis and an understanding of cost drivers if online **auctions** do the job for them? Will buyers be motivated to understand total cost? Are online **auctions** consistent with the development of relationships that professors and CEOs claim are so important to business? Will workers, tired of traditional purchasing tactics, find participation in online **auctions** to be a more fulfilling activity? Will students be drawn to a career in supply chain management or away from it? To what extent will online **auctions** facilitate the movement of work to developing nations? Is this shift inevitable, will it force developed countries to realize a new role in the global economy? Is this outcome acceptable, unacceptable, or rightly inevitable?

(7) Do online **auctions** fundamentally improve productivity? Is lower price equivalent to an improvement in productivity? Or do online **auctions** lead to improvements in productivity? Will productivity be driven incrementally by functional departments focused on their own individual metrics, or will it be integrated across stakeholders (Emiliani, 2000a)? Will those employed by suppliers enjoy working in a business whose leadership perpetuates incremental improvements based upon batch-and-queue

production methods, or will they demand adoption of lean production and its associated leadership model (Emiliani, 1998a; Emiliani, 1998b)?

Conclusion

Online **auctions** conducted over the Internet offer substantial sales growth opportunities for the intermediaries and substantial unit cost reduction for buyers of selected commodities. It is likely that most of the Global 1000 corporations will experiment with downward price online **auctions** for production materials simply because they change the nature of competition. Management will find it difficult to resist the temptation to achieve quick results, particularly when it comes to actions directed toward suppliers (Emiliani, 2000b). Many companies will likely adopt online **auctions** as part of their ongoing purchasing process or perhaps even outsource the bulk of purchasing activity to online **auction** firms.

It is apparent, however, that online **auctions** are best suited for corporations that do not understand the cost of the materials they purchase. Thus, the number of companies contracting for online **auctions** will be indicative of the number of companies that do not understand the cost of input materials, their cost drivers, cost build-up through the supply chain, and total cost, not to mention quality or lead-time. The number is likely to be quite large, which raises fundamental questions about how large corporations are managed (Emiliani, 2000a), the training that consultants deliver to managers, and how students are educated in preparation for business careers.

It should become evident that the dominant production system used by buyers of online **auction** services is batch-and-queue. The fatal flaw of this production system is now fully exposed: the buyer and its extended enterprise are not learning practices that yield sustainable competitive advantage through demonstrable improvement in productivity (Ohno, 1988; Womack and Jones, 1996). The debilitating inward focus on results is characteristic of batch-and-queue producers and drives self-similar behaviors in associated supply chains.

The downward price online **auction** is simply traditional purchasing aided by new technology. It is an attractive technological solution for reducing costs, but it does not help uncover the root causes of poor cost management within the buying firm. Further, the intermediaries understand commodity management, markets, and information technology very well, but do not understand supply chain management and lean production, as evidenced by contract terms and conditions. As a result, an unintended consequence of business-to-business downward price online **auction** process is that it will likely delay the adoption of modern supply chain management and lean production methods that are needed by both buyers and suppliers in order to truly eliminate waste and reduce total costs.

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Caption: Figure 1; The business-to-business on-line **auction** process; Figure 2; An example of the bid record generated during an online **auction** for one lot of custom-designed machined parts; Figure 3; Schematic diagram showing the cycle time for the entire online **auction** process for custom-designed components

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Business Wire

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FairMarket Introduces Innovative Tools to Maximize Yield; Enhanced Functionality Enriches Shopping Experience

Business Wire

Monday , April 16, 2001 17:42 EDT

Text:

WOBURN, Mass., Apr 16, 2001 (BUSINESS WIRE)

- FairMarket(sm), Inc. (Nasdaq: FAIM), a leading provider of e-business selling and marketing solutions incorporating dynamic pricing, today announced the immediate availability of significant new enhancements to its clearance and surplus solutions designed to maximize sellers' yield and increase end-user appeal.

These capabilities provide FairMarket's leading roster of retail, manufacturer, distributor and interactive marketing clients with innovative tools that are unique to dynamic commerce. Key features of this quarterly release include: seller ability to automatically move items from fixed price

to falling price to **auction** as needed; seller ability to represent items of many colors or sizes in a single **auction** listing; and buyer ability to set a limit order on a falling price item. Additionally, sellers can now automatically extend an **auction**'s duration to maximize excitement and **bidding**.

"FairMarket is known for offering customized solutions that make implementation and management of clearance systems a lucrative undertaking," said Eileen Rudden, president and chief executive officer of FairMarket. "These new features underscore FairMarket's commitment to make it even easier for companies to achieve higher yields while further automating the selling process."

Maximizing Yield

Sellers seeking to maximize yield and sales volume goals even as they move merchandise into markdown and clearance can specify pre-determined business rules to automatically move items between fixed, falling and **auction** pricing formats. For example, when a fixed price item is not meeting sales goals it can automatically be moved to falling price and then to **auction** formats.

Additionally, FairMarket has enhanced its **auction** solution by offering automatic time extensions or "popcorn" **bidding**. This functionality enables **auction** end-times to be **automatically extended** based on the **level** of recent **bidding activity** on an item, providing the opportunity for the highest possible bid price from available bidders.

Increasing Usability for the Consumer

FairMarket has improved the buyer experience with new features that more closely resemble the catalogue experience already familiar to many retail customers. Multi-item SKU allows a seller to represent several similar items within one **auction** listing.

Limit order functionality provides customers with the power to dictate the specific price they are willing to pay for an item on a falling price listing.

End-users place a "reserve" order on an item, and assuming the item reaches that price, the system automatically places a purchase on the item for the end-user.

Additional Functionality

FairMarket is also offering new interactive marketing functionality including the ability to integrate with existing point systems and customized voice messages on wireless services.

Additionally, this release includes: streamlining product upload, multi-category listing ability, and RFQ and data-mining enhancements.

About FairMarket, Inc.

FairMarket (Nasdaq: FAIM) develops and delivers e-business selling and marketing solutions for retailers, distributors and manufacturers. A recognized leader in dynamic pricing technology, FairMarket provides hosted and scalable solutions to help enable companies to maximize price yield and promote their brands. Major corporations including JCPenney, Dell Computer Corporation, CompUSA, New Line Cinema, Virgin.Net and MSN rely on FairMarket's discount, clearance and promotional technologies and services. Headquartered in Woburn, Mass., FairMarket has offices in the U.K. and Australia. The company can be reached at 800-531-7871 or on the Web at www.fairmarket.com.

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This press release contains information about future expectations, plans and prospects of FairMarket, Inc. that constitute forward-looking statements for purposes of the safe harbor provisions under the Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by these forward-looking statements as a result of various important

factors including but not limited to market acceptance of FairMarket's online **auction** and other e-commerce services; growth of the market for dynamic e-commerce services; the competitive nature of the online markets in which FairMarket operates; FairMarket's ability to generate significant revenue to reach profitability; FairMarket's ability to attract and retain qualified personnel; FairMarket's ability to retain existing customers and to obtain new customers; the operation and capacity of FairMarket's network system infrastructure; FairMarket's ability to expand into new geographic markets and the currency, regulatory and other risks associated with expansion into international markets; FairMarket's limited operating history; and the other risks and uncertainties discussed under the heading "Risk Factors" in FairMarket's prospectus filed with the Securities and Exchange Commission on March 14, 2000 in connection with FairMarket's initial public offering and the reports filed by FairMarket from time to time with the Securities and Exchange Commission. FairMarket assumes no obligation to update any of the information included in this press release.

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